DOCUMENT RESUME

ED 080 689 VT 020 927

TITLE	National Incomes Policy and Manpower Problems. Proceedings of the Annual Research Conference in Industrial Relations (14th, Los Angeles, California, March 16, 1971).
INSTITUTION	California Univ., Los Angeles. Inst. of Industrial Relations.
PUB DATE	72
NOTE	73p.
AVAILABLE FROM	Institute of Industrial Relations, University of California, Los Angeles, CA 90024 ($1.50)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Conference Reports; Costs; Decision Making; *Economic Research; Employer Employee Relationship; Human Resources; Income; *Industrial Relations; Job Development; *Labor Economics; *Labor Turnover; Management; Manpower Utilization; *Public Policy
IDENTIFIERS	Inflation; Manpower Policy

ABSTRACT

Two current economic dilemmas concern how to increase the supply of money without risking further inflation and how to influence wage-price decisions. The major purposes of the conference presented in this document were to define a national incomes policy, to explore alternative approaches to wage-price decisions, and to assess their implications for labor-management relations. Another objective was to examine research in areas that have long-range implications for manpower planning, the turnover problem and the restructuring of jobs. Papers by management, labor, and university representatives discuss these issues from their individual points of view. (Author/MF)

ED 080689

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

NATIONAL INCOMES POLICY AND MANPOWER PROBLEMS

Proceedings of the Fourteenth Annual Research Conference in Industrial Relations

March 16, 1971

VT020927

Institute of Industrial Relations • University of California • Los Angeles

FILMED FROM BEST AVAILABLE COPY

$ 1.50

NATIONAL INCOMES POLICY

AND MANPOWER PROBLEMS

The present Administration has been faced with two baffling and complex economic dilemmas: how to increase the supply of money without risking further inflation and how to influence wage-price decisions. A major purpose of this conference is to define a national incomes policy, to explore alternative approaches to wage-price decisions, and to assess their implications for labor-management relations.

Another objective is to examine some current research in two areas that have long-range implications for manpower planning: the turnover problem and the restructuring of jobs. A distinguished group of management, labor, and university representatives discuss these issues in the light of their experience and from their individual points of view.

(Proceedings of the 14th Annual Research Conference in Industrial Relations, held at the Ambassador Hotel, Los Angeles, March 16, 1971.)

Presented by

The Institute of Industrial Relations
in cooperation with
University Extension

University of California, Los Angeles

Published in 1972

Copies of this volume may be purchased
at $1.50 each from the Institute of
Industrial Relations, University of
California, Los Angeles, California 90024

CONTENTS

RESULTS OF AREA TURNOVER STUDY BY MERCHANTS AND MANUFACTURERS ASSOCIATION. 1

Richard Bradley, Staff Consultant, Merchants and Manufacturers Association, Los Angeles

HUMAN RESOURCES ACCOUNTING-MEASURING COSTS OF TURNOVER. . . 6

Eric Flamholtz, Professor, Graduate School of Business, Columbia University.

PRESENT MYTHS AND FUTURE REALITIES ABOUT TURNOVER. 23

Marvin Adelson, Professor, School of Architecture and Urban Planning, University of California, Los Angeles

REDESIGNING JOBS: A SOCIO-TECHNICAL APPROACH. 31

Louis E. Davis, Professor, Graduate School of Management, University of California, Los Angeles

EXPERIENCE IN DEVELOPING AND IMPLEMENTING A COMPANY PROGRAM. 43

Barie E. McCurry, Organizational Development Specialist, Proctor & Gamble

A NATIONAL INCOMES POLICY FOR THE UNITED STATES. 46

R. A. Gordon, Professor of Economics, University of California, Berkeley

NATIONAL INCOMES POLICY AND ITS IMPACT ON LABOR-MANAGEMENT RELATIONS. 54

Frank L. Fernbach, Assistant to President for Special Projects, United Steelworkers of America, AFL-CIO

A BUSINESS ECONOMIST'S VIEW OF NATIONAL INCOMES POLICY. . . . 62

Harry R. Biederman, Senior Economic Advisor, Lockheed Aircraft Corporation, Burbank

RESULTS OF AREA TURNOVER STUDY
BY MERCHANTS AND MANUFACTURERS ASSOCIATION

Richard Bradley

It's a very real pleasure for me to be here today. The last time I spoke in this room was some eight years ago, at a national safety congress on psychological aspects of accident prevention. At that time I followed a man most of you know, Dr. Gilbert Brighouse, who is a very fine speaker and a real hard act to succeed. So, when I found out I was going to be first on the program, this put me somewhat at ease.

The Merchants and Manufacturers, to set the context of our study, is an association primarily concerned with servicing 2200 members in the field of industrial relations and personnel. In 1948, it conducted a survey, published in 1949, on labor turnover in Southern California. In 1959, it published a survey primarily of the costs associated with labor turnover. And then, when the state of California stopped keeping statistics for labor turnover purposes for the National Bureau of Labor Statistics, in 1968, it was pretty much determined that if we were going to find out what was going on in California or Southern California, a new study needed to be made.

While the previous surveys made by the M and M were on a very selective basis, our survey this time was mailed to 2100 companies, covering all facets of business and industry. Although we do have some municipalities and county governments and so forth who are members of the M and M, we did not survey them in the labor turnover study. The main purpose of this study was to become a vehicle for the publication of a handbook, primarily for what we call our average member. The average member has about 200 to 250 employees, and the plant manager or plant owner may have a significant amount of information about labor turnover, but probably has not been concerned with it in the depth that he should have been. So we wanted primarily to publish a handbook as opposed to a study of labor turnover, but we needed a vehicle in order to create the motivation to at least read the handbook. The response to the 2100 questionnaires while gratifying in one sense, was very depressing in another: we only received 430 replies back. Of those, we could only use approximately 350. I'm told by others who've studied this question, however, that a 16 percent return is rather good, particularly on labor-turnover studies.

Now, in order to simplify matters for our members if they did not keep statistics, we asked that they only survey the year 1969. Even though we were conducting the study during 1970, we wanted the figures on what we would call a base year that was not too "swaying"--I don't know what word I'm trying to use now--a year in which there were no big swings in layoffs and quits, and 1969 seemed to be a good year for that purpose. And

in line with this, we only asked for data for four specific months, what we call bench mark months, March, June, September, and December. So, again, if they handn't kept statistics, it would not be an overwhelming burden to go into the personnel records and research for the information we asked. Then we only asked for certain pieces of data: how many people they hired in those four months; how many they terminated, for whatever reason; what they estimated their costs to be or, if they had kept cost records, to give us their actual costs of labor turnover. We did ask, if they possibly could, to separate the information by males and females.

Now, useable responses, as the information became more definitive, the useable responses also became fewer. For instance, in the total survey we had 16 percent that we could use in one or more parts of the survey. In the separation accession rate, or the net labor turnover as it might be called, we had 280 responses that we could use; the reason for termination, why people leave, 239 or about 12 percent; and for the cost data, we were down to around 187 companies covering approximately 664,000 employees with some 30,000 accessions and 27,000 separations. So, we felt that we had a good cross-section of all areas of business and industry in Southern California.

We then developed the material down into specific industries, again so that it might be more useable for comparative purposes of our members. The conclusions we came to are not, perhaps, frightening and they're certainly not overwhelming; anyone who studied turnover in his company in depth, they would not surprise him. The net monthly turnover in Southern California runs about the same as the national average. We found in manufacturing a 4.15 net monthly labor turnover, which would figure out about 48 percent a year; in wholesale and retail, it was 3.88 percent; finance, real estate, and insurance, 4.69 percent; and in the service industries, private utility companies, and so forth, 3.70 percent: for an overall average of 4.13, and in the national studies of statistics in the manufacturing field they run approximately, seasonally adjusted, 4.6 to 4.7 percent.

Now, these are the conclusions that we have come to partly from the survey and partly from about a year and a half of reading everything we could on the subject of labor turnover. Number one, labor turnover is increasing, or was, up to the year 1969. We're not talking about specifically layoffs or quits, but just turnover in general. However, specifically, even quits had begun to increase in a significant proportion. In 1959, a quick survey taken by the M and M reveals a 3 percent turnover in Southern California. In 1969, it was over 4 percent. Now, 1 percent may not sound very large unless you're a company of about 100 people, and one person a month could be a significant cost factor to you. The Bureau of Labor Statistics, between 1959 and 1965, reported an average quit rate, just the quits or the turnover that most of us are concerned with, of 1.5

percent. Between 1966 and 1969, it had increased to 2.5 percent. And the preliminary studies for 1970 show that that's even increasing in spite of the economic drop-off we've had within the southern California area.

One study by the University of Michigan was rather interesting. It indicated that there was 5 times higher turnover in 1968 than there was in 1960. And between 1965 and 1968, three out of five companies reported a higher turnover than they had had back in 1965. One Fortune study I thought was rather interesting, and it indicated that turnover was increasing nationally as well as in Southern California. The same companies, the same caliber of people had been studied between 1963 and 1968; 57 percent of the companies reported higher turnover in 1968 than in 1963. So, the first conclusion we're coming to very rapidly in this field of turnover is that it is increasing in spite of economic changes within the country. And usually there's an inverse relationship between turnover and what is happening economically.

The second major conclusion we arrived at is that costs are higher than companies think they are. We asked the companies if they kept actual breakdowns of their costs to please submit those to us, and if not, would they estimate what three levels of people would cost to replace. This would be both the separation paper work and the rehire or reorienting, reinitiating a new employee into that position. In production and maintenance, the estimates of approximately 50 percent of the companies who submitted costs were $460 for production and maintenance employees. Those companies actually reporting costs stated $1,072 average cost. In the technical and office areas the estimates were $624, those reporting actuals, $1,136. And in the exempt classifications, exempt salaried employees, the estimates were $1,547 and the actuals were $2,669. So we can assume, based on the general picture, that most companies are not predicting their costs high enough in this field of labor turnover. And yet, it may very well be one of your highest costs of production.

Interestingly enough, we found another thing; we wanted some data to compare to the BLS since California didn't submit statistics. We found that the females in our Southern California area have no more or no greater turnover than the males. And, of course, the Women's Bureau of the BLS has recently reported that same fact. As a matter of fact, in California, in the year 1969, there were approximately 64 percent males to 36 percent females, and in our study the males' turnover was 65 percent and the females' 34.4 percent. So it was just about the same ratio as the total labor market.

Another factor that we have arrived at, we've concluded, is that the causes for labor turnover are significantly changing. In those companies where exit interviews were performed, it was pretty much determined that the reasons people are giving now

under "better job" are significantly different than they were some twenty years ago and some ten years ago. Prior to World War II, apparently from what we can find in all of the data, the major reason for leaving a job--now we're talking about the voluntary quits, those leaving us through their own volition--was looking for stability, security, some of the basic needs, apparently. Perhaps there was a remembrance of the depression on the part of many people, and certainly we did not have the highly mobile society that we have today. Following World War II, however, the need seemed to be changing to something a little more materialistic. Better pay was almost synonymous with better job, and particularly in those areas and those classifications that were difficult to fill--engineers, scientists, research people. During the last five years, since 1964, we seem to be having a great deal of turnover under the term "better job," not for more money, not for better stability or security, but for the satisfaction of doing what you want to do. Interestingly enough, many company presidents seem to be leaving and going to other places, not so much for what presidents used to go for, but for the opportunity to accomplish what they want to accomplish in life--leave footprints in the sands of time, if that's the proper wording.

Another conclusion, based upon some of the data we received and some of our phone calls back to the respondents, is that although management seems to know the language "turnover," they don't do anything about it inside, that is, inhouse. I'm sure that most of you in the field of industrial relations have had the same experiences I've had, where I've spent a great deal of clerical time and personal time making a total analysis of what was happening within my company, submitted it up through the hierarchy of management, it went into some vice-president's or president's drawer, and sat there for one year. No one looked at it, no one made any determinations of what should be done. One year later when we submitted another one, they threw the old one away and stuck the new one in the drawer.

Based on the statistics that we get and the types of responses we get, I think part of that is our fault. We had also asked, "if you don't want to figure out your own turnover, but do keep it on a monthly basis, submit your data to us and we will extrapolate and put it into our survey." I received one response to our questionnaire, a labor turnover statistical study within a company, but the only person who could possibly have read it was the EDP manager. It was a beautiful work of electronic data processing and accounting for people, but it didn't say anything about individuals. And I'm sure that when the company president looked at that and said, "Oh, we have 4 percent turnover, that's about the national average, that's great," that's all that was done with it. We in the field of industrial relations seem to feel that we have to prove ourselves by these studies, and yet when we actually get down to the nitty gritty of trying to do something about it, we haven't convinced our upper-level management that it is really necessary.

Well, these are some of the pieces or conclusions that we arrived at in our study. We're not going to make an annual study. We feel, however, that if we were to make one covering the year 1970, the picture would look somewhat different. The layoff picture in some of the larger and supporting industries to aerospace would definitely show different patterns than it did in 1969. However, we feel that it accomplished its purpose, and that was to allow people to understand some of the techniques and methods they could take to reduce their turnover, if they wanted to. And, you know, the thing that's amazed me: since this was released and published and sent out to all 2100 members, and this was in about November of last year, I've received five calls--only five. I would have thought that management would have been a little more interested in both their costs and their causes of turnover than that.

HUMAN RESOURCES ACCOUNTING--
MEASURING COSTS OF TURNOVER

HUMAN RESOURCES ACCOUNTING-- MEASURING COSTS OF TURNOVER

Eric Flamholtz

I am very pleased to have the opportunity to be with you here today to discuss human resources accounting and some of its implications for the measurement of turnover cost. As a word of background, the concept began in a very embryonic stage a few years ago. I began working with it in 1967, and I have worked with three organizations which are attempting to develop systems of accounting for human resources. I will discuss each of them later; briefly, they are in light manufacturing, insurance, and Certified Public Accounting.

Purpose Of Presentation

The purpose of my presentation today is to focus on four specific questions: What is human resources accounting? Why is it necessary? How can it be helpful in measuring the cost of turnover? What progress has been made to develop it?

Definition Of Human Resource Accounting

Human resources accounting can be defined as the process of identifying, measuring, and communicating information about an organization's human resources in order to facilitate their effective management. Specifically, it would attempt to focus on decision-making involving people, and also upon the evaluation of the effectiveness of their utilization. Its purpose then is to provide measures of the cost and value of people to an organization in order to facilitate their effective management.

Need For Human Resource Accounting

The need for human resources accounting has been recognized for quite some time. In fact, Andrew Carnegie is reputed to have once said, "If you take my plants, my equipment, and all of my other resources except my people, in a few years I will have everything back again." Similarly, the importance and value of people to organizations is frequently cited in corporate annual reports. A favorite cliche frequently found in such reports is, "Our employees are our most important, our most valuable asset." For example, in a recent annual report of Uniroyal, it is stated that "Our prime resource is people. Uniroyal is essentially a collection of skills, the varied expertise of our 68,000 employees." Yet, if you turn away from these comments in the president's

letter of the corporate annual report, you might reasonably ask yourself, 'Where is this human asset on the firm's financial statements, the income and balance sheets? What is the value of this most important asset? Is it increasing, decreasing, or remaining unchanged? What return, if any, is the firm earning on its human resources? Is the firm allocating its human resources in the most profitable way?" No answers to such questions are typically found.

The need for information about the cost and value of people to organizations is increasingly important today, both at the level of the economy as a whole and at that of the individual firm. At the level of the economy, we see firms increasing in importance relative to physical capital. At the level of the firm, many organizations are almost totally human-capital intensive. Examples are advertising, aerospace, consulting, entertainment, and CPA firms. In addition to profit-making organizations, non-profit organizations such as universities also are highly human-capital intensive. In such organizations people are, quite literally, the most valuable asset.

Human resources accounting is also important because many firms invest quite heavily in recruiting, selecting, hiring and training people. In other words, they invest in human-asset building.

The organizational psychologist Rensis Likert has indicated he believes that because of the failure of financial statements to reflect the cost and value of people, some managers may actually be encouraged to deplete their organization's human resources on a systematic basis. Specifically, he believes that managers may be encouraged to put pressure on their subordinates for increased short-term productivity, while in turn, over the long run, this may result in deteriorating employee attitudes, decreased motivation, decreased productivity, and an increase in the probability of people leaving. In effect, the managers may be encouraged to trade short-term profitability for long-term depletion in assets. And they can do this because of the failure of financial statements to reflect the cost of people when they leave.

Use In Measuring Turnover Costs

Well, now the basic question emerges: How can human resources accounting help in measuring the cost of turnover? At present, relatively few organizations attempt to measure turnover costs. Only 16 percent of the recipients responded to the Merchants and Manufacturers recent labor turnover study that was cited by a previous speaker; and of those, about 55 percent seemed to have been at least in the position or able to estimate the cost of turnover. We don't know whether they actually kept records on it, but at least they could have come up with some sort of estimate.

Of the respondents, it was also determined that the basic reason for not answering questions was the failure to have the information that was requested in the survey.

Research In Progress

However, a few firms have recently begun to investigate the feasibility of accounting for the human resources, and they find that their human resources accounting system helps them answer the question, "how much does turnover cost?" This question is not a simple one for two very important reasons: First, there are several different types of costs that are actually incurred by an organization as a result of turnover. Each of these are as follows: first, there's a loss of investment in human assets that results when turnover occurs; second, there is a replacement cost attributable to turnover; and third--and perhaps most important--there is an opportunity cost attributable to turnover. I will define each of these in turn.

Cost of Lost Investment

The cost of lost investment attributable to turnover refers to the loss of the expenditure that was actually made to acquire and develop an individual and bring him into the organization. It is the cost to recruit, select, hire, and train an individual. It is equivalent in many ways to the book value of a physical asset that we find on the balance sheet. For example, if a machine were destroyed during a fire, the loss of investment incurred would be the undepreciated asset cost. In the same way, if an individual leaves an organization, there is a loss of the investment that has been made to bring him into the firm.

Replacement Cost

The replacement cost of turnover is the monetary sacrifice that would have to be incurred today if the organization were to replace an individual with another capable of rendering an equivalent set of services. It is the cost that would have to be incurred in the present market; and it obviously changes due to the changing market for labor in a particular area and in the economy as a whole.

Opportunity Cost

The opportunity cost of turnover is the cost of the opportunity foregone to utilize an individual's services. For example, if a salesman were to leave an organization, the firm would incur an opportunity cost equivalent to the loss of the sales revenue while his position was vacant during the search for a replacement.

Similarly, if a manager were to leave, the organization would incur an opportunity cost as the result of the decreased productivity of his subordinates while they were looking for a replacement.

Model For Measurement Of Human Resource Costs

The second reason for the difficulty in answering the question, "How much does turnover cost?," is that the measurement of each of these three costs (the loss of investment, the replacement cost, and the opportunity cost) presents quite difficult theoretical and practical problems. These will be discussed subsequently. I'd like to turn now to a model for the measurement of human resource investment and replacement costs.

The model is shown in Exhibit 1. The opening construct that we are concerned with is called "positional replacement cost." This is the sacrifice that would have to be incurred today to replace an individual in a given position with a substitute capable of rendering an equivalent set of services in that position. It is comprised of three basic components: acquisition costs, learning costs, and separation costs. Each of these elements of positional replacement costs have both direct and indirect components. I will discuss each one of these in turn.

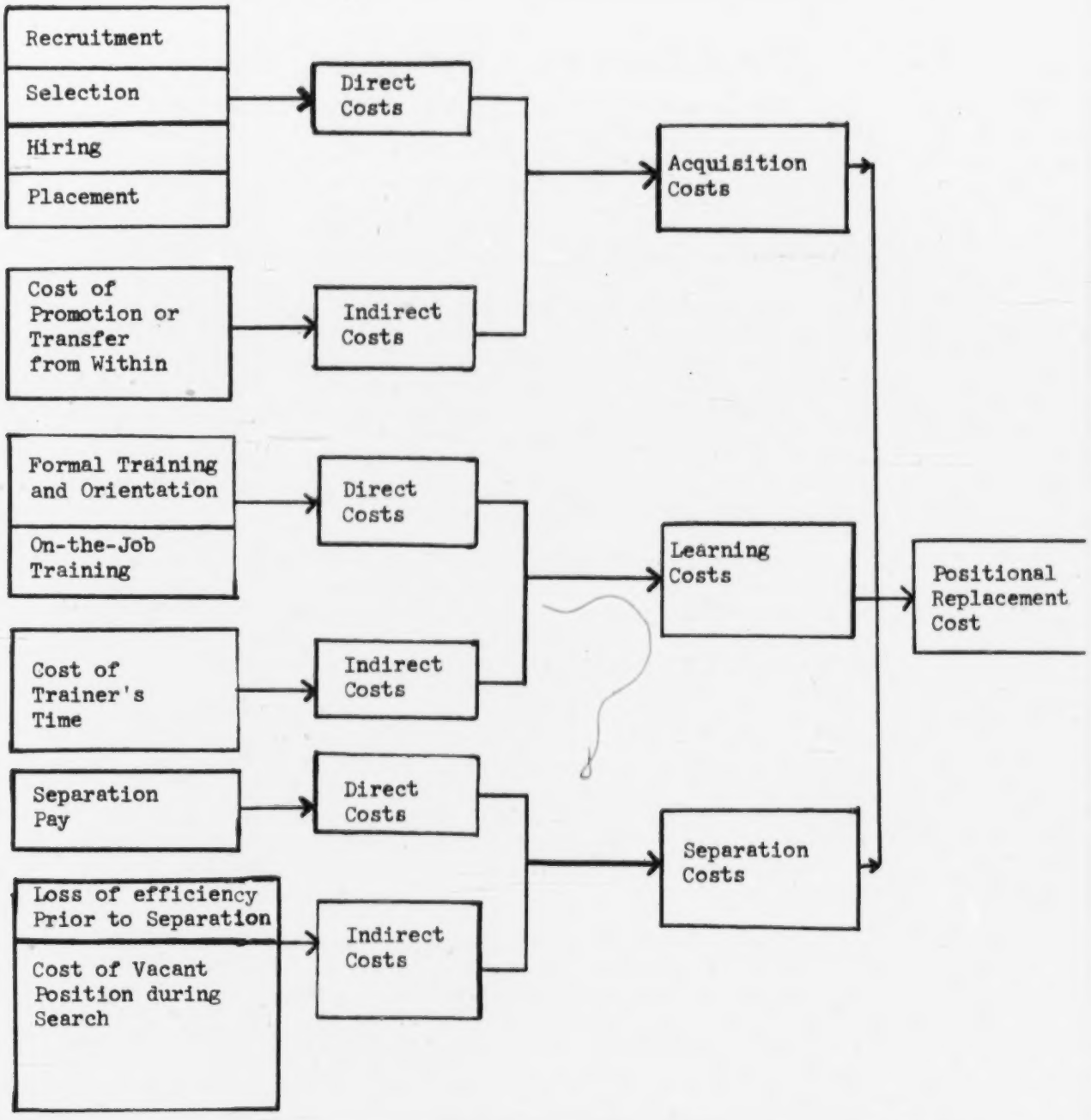
The direct costs of acquisition are the typical ones--recruitment, selection, hiring, and placement. The indirect cost of acquisition is what we call the cost of promotion or replacement from within. This is best discussed in terms of an example. Let's assume that a controller were to leave an organization, and that he was replaced by an assistant controller who in turn was replaced by a staff accountant. The original separation would create a chain of replacements and transitions of people throughout the organization. This would result in two kinds of costs. Ultimately, you would have to go out of the organization to find a replacement for the higher level person who has been promoted, and, in addition, you would also incur indirect costs as a result of decreased productivity of people who are now learning their various new jobs.

There are two kinds of "learning costs"--direct and indirect. The major direct costs are formal training and orientation, especially any vestibule training that is given, and on-the-job training. The cost of learning is the difference between the actual productivity and standard productivity during a training period.

The indirect cost of learning is the cost of any trainer's time that would be involved in training an individual on the job.

EXHIBIT 1

Model for Measurement of Human Resource Replacement Costs



Source: Eric G. Flamholtz, "Human Resource Accounting: Measuring Positional Replacement Cost," Accounting--Information Systems Working Paper No. 71-10, Graduate School of Management, University of California, Los Angeles, March, 1971.

The "separation costs" also consist of two components. Separation pay would be the most obvious direct cost, while the indirect cost would be of two kinds--the loss of reduced efficiency prior to the individual leaving an organization, after he's made a decision to leave. Here, again, one of the classic examples is that of a salesman, who, having left the territory, tends to cost an organization a great deal in terms of an opportunity cost while he's being replaced.

One of the points that I want to make with respect to this model is that the investment cost of turnover is really a subset of the replacement cost. It consists of the acquisition and learning costs, while if we have the third element, separation costs, we get the replacement costs of turnover.

Illustrative Data From Research

Now let's look at some data that are derived from two organizations on the investment costs of turnover and on the replacement costs of turnover. At the R.G. Barry Corporation, which is a light manufacturing corporation with headquarters in Columbus, Ohio, a study was designed to calculate the investment that the firm makes in its managerial personnel. It was found that the average investment made in first line supervisors was approximately $4,000, and in middle managers approximately $16,000, and in top managers approximately $35,000 (See Exhibit 2). In another organization an attempt was made to calculate the replacement costs of people in two groups: claims and sales personnel. Let's give this firm a pseudonym, the Great Lakes Insurance Company. It is a medium-size insurance company with $250,000,000 in assets, located in one of the Great Lakes states. As you can see from this exhibit, the replacement costs of people vary from $6,000 for an entry-level position of claims investigator to a high of $24,700 for a field examiner (See Exhibit 3). We can also see that the claims manager would cost $18,700 to replace. This indicates something which may be of interest--it is not necessarily true that the replacement costs of people increase as we go higher in an organization. It also depends upon the length of training; and particularly in specialized positions there may be a higher degree of training than at lower levels. So you may find a higher replacement cost of some intermediary-level positions than in some of the higher managerial positions.

For salesmen, we found much higher replacement costs (See Exhibit 4). The firm typically classified its salesmen according to average, below average, and above average performance, based upon their sales revenue. For example, if an individual sold more than $40,000 a year, he would be considered an above average salesman; between $30,000 and $40,000, he would be considered average; and below $30,000 he would be considered a below average

EXHIBIT 2

Investments In Managerial Resources
By Positional Level at the R.G. Barry Corporation

Positions	Investments
First-line supervisor	$ 4,000
Middle managers	16,000
Top manager	35,000

Source: R.L. Woodruff, Jr., "Human Resource Accounting," Canadian Chartered Accountant, September, 1970, p. 4.

EXHIBIT 3

Great Lakes Insurance Company*
Replacement Costs of Claims Personnel

Positions	Positional Replacement Costs: Expected Costs	Positional Replacement Costs: Standard Costs
Claims investigator	$ 6,000	$ 6,000
Claims adjustor	6,000	6,000
Office adjustor	7,800	7,800
Field examiner	24,700	12,800
Claims examiner	9,700	8,700
Senior examiner	15,900	15,900
Chief adjustor	15,100	15,100
Claims manager	18,700	18,700

*This is a pseudonym.

Source: Eric G. Flamholtz, "The Theory and Measurement of Individual's Value to an Organization," unpublished doctoral dissertation, The University of Michigan, Ann Arbor, Michigan, 1969.

EXHIBIT 4

Great Lakes Insurance Company*
Replacement Costs of Sales Personnel

Positions	Positional Replacement Costs: Expected Costs	Positional Replacement Costs: Standard Costs
Salesmen:		
1. Below average performance	$ 31,600	$ 31,600
2. Average performance	44,100	44,100
3. Above average performance	56,800	56,800
Sales manager trainee	51,700	51,700
Sales manager	185,100	90,000

*This is a pseudonym.

Source: Eric G. Flamholtz, "The theory and Measurement of an Individual's Value to an Organization," unpublished doctoral dissertation, The University of Michigan, Ann Arbor, Michigan, 1969.

person. The cost of replacing a below average performing salesman was $31,600, which rose to $56,800 for replacing an above average performing salesman. And this went to a high of $185,100 to replace a sales manager.

Now, the reason for these very substantial replacement costs is one that might be clear to you immediately: the very high opportunity costs attributable to turnover. When the salesman left, the position was vacant, and before another salesman could be recruited, hired and trained, and would be effectively functioning, a very substantial opportunity cost would be incurred. If a sales manager left, the firm knew from past experience that it could expect decreased productivity for all its salesmen, over time and to varying degrees--less for an above average performing salesman than for an average performing man, and less for an average performing man than for the below average. So, the costs of replacing a sales manager would be extremely high.

Model For Human Resource Valuation

Let's turn now to the area of measuring opportunity costs. The work in this area is somewhat more theoretical and it's somewhat more complex. But I hope you'll bear with me. First, let me reiterate the definition of opportunity costs we previously mentioned; it is the costs of alternatives or opportunities foregone. The opportunity foregone when a person leaves an organization is essentially the opportunity to derive the services that he was expected to render. For example, the loss of a high potential MBA may be equivalent to a loss of his promotability and the services that he would be expected to render to the organization in higher level positions.

How are we going about measuring the opportunity costs of turnover? Essentially by measuring the value of an organization's individuals. What we need in order to measure the value of people to an organization are two kinds of data: first, data upon the value of each position to the organization; and secondly, the probabilities that people will occupy the positions at specified points in time. First, let's look at the kinds of data we need in terms of the value of the positions. We would need to know the worth of the various positions to an organization; for example, a technical position in marketing might be worth $20,000, a new management position in finance might be worth $25,000, and an executive position in production might be worth $47,000. We also need to know the probabilities of people occupying these various positions. This means essentially that we are attempting to determine the probabilities that people presently in a given position will occupy **any** other position at specified points in time. One method of getting these data is by using historical probabilities, another is by using subjective probabilities.

EXHIBIT 5

Markov Transition Probability Matrix

1970 \ 1971	80 MT	10 MM	0 ME	1 FT	0 FM	0 FE	2 PT	0 PM	0 PE	7 EXIT
MT	.80	.10	0	.01	0	0	.02	0	0	.07
MM										
ME										
FT										
FM										
FE										
PT										
PM										
PE										
EXIT										

Let's look at Exhibit 5. What we have done here is to list various positions: marketing-technical, marketing-middle management, etc., and also the state of exit from the organization. We are looking at this from two points in time--1970 and 1971.

Let's assume that there are presently 100 people in marketing-technical positions; we'd like to know the probability that these people will occupy any of the various positions or have left the organization by 1971. Let's say that we find, at the end of the year, that 80 of the 100 people are still in the marketing-technical positions, 10 are in the marketing-middle management positions, none are in the marketing-executive positions, 1 has been transferred to a finance-technical position, 2 have transferred to production-technical positions, and 7 have left the firm. Simply by dividing the number of people in positions at the beginning of the year by the number of people occupying the positions at the end of the year, we can determine the probabilities of transition. If we carry this forward over time, we can generate the probability of people occupying positions based upon their occupancy of a position today.

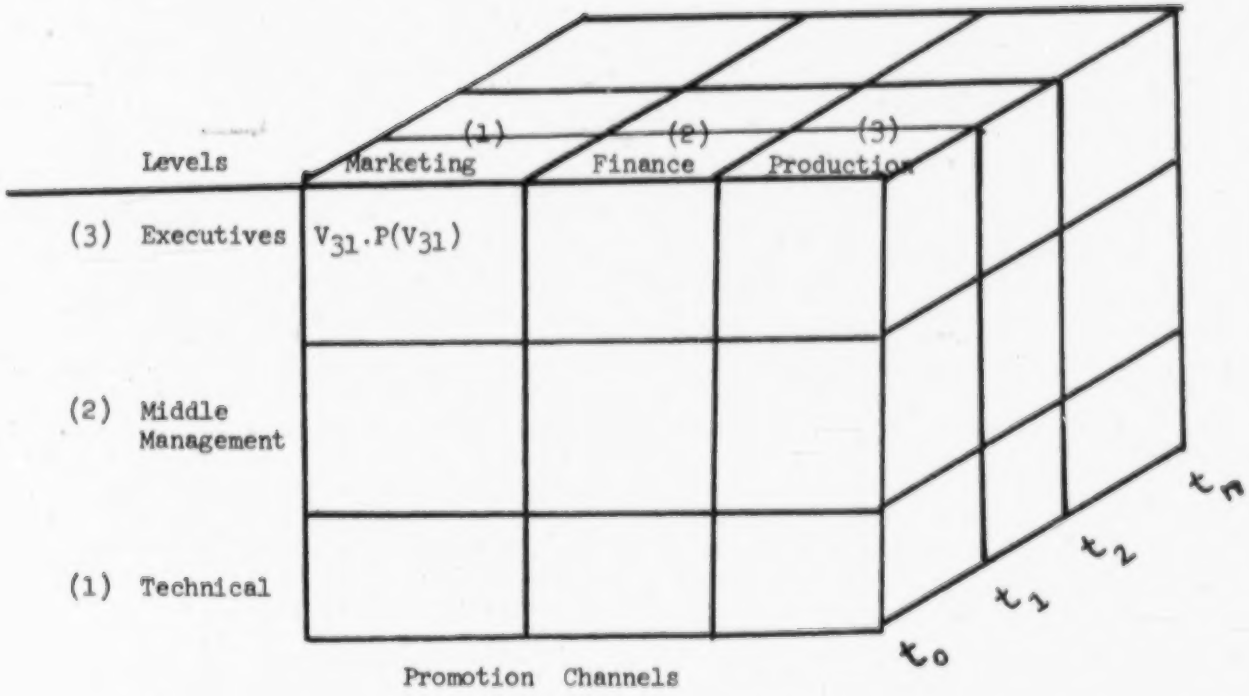
Taking the model as a whole, what we're trying to do is to derive two sets of data over time. Let's look at Exhibit 6. We are trying to determine the value of a position, for example, the executive-marketing position, and the probability that the individual will occupy that position. If we do this over time, we could calculate the individual's prospective value to the organization. We discount the future value of the people back to the present to determine their present worth. In other words, we take into account the factor of interest to discount future money to present dollars to determine the value of the person.

Now, what we're saying essentially is that if an individual leaves an organization, the opportunity cost that has been incurred is equivalent to the loss of the individual's prospective value to the firm. It is more complex than that, but the time constraint is making me go through this presentation very rapidly.

There is research in progress to assess the validity and reliability of this model, specifically work with the insurance company and the CPA firm. The CPA firm is one of the large, national CPA firms, typically known as "The Big 8." This research will continue. It's quite complex, but it offers great promise in measuring the value of people to an organization.

EXHIBIT 6

Three Dimensional Model For
Human Resource Valuation:
A Stochastic Process With Rewards



Implications For Business

Let's now review briefly the purposes of the different turnover cost concepts and what they might mean to you in an organization. First, the loss of investment attributable to turnover indicates the actual costs of dollars previously expended in acquiring human resources. This concept is consistent with the way resources are accounted for in conventional financial statements. It is very important in indicating the degree to which an organization has been effective in maintaining its human resources. As I previously cited, Rensis Likert believes that some managers actually attempt to liquidate the human resources in order to show increase in short-term profitability.

Let's look at that in a concrete illustration. Exhibit 7 shows comparative balance sheets for 1970 and 1971 for a hypothetical organization, called Divisionalized Enterprises. It shows the balance sheets according to conventional accounting and according to the principles and notions of human resources accounting. As you can see, at December 31st, 1970, divisions A and B have the same amount of assets. We've dropped off the last three zeros, so we have 50 million dollars in assets for each of these two divisions. If we look at the balance sheets according to what human resources accounting would be, we'd see that each of these divisions had approximately 5 million dollars in human assets at December 31st, 1970, giving them a total asset of 55 million dollars.

Now let's assume that one of the divisions incurred a turnover loss of approximately $500,000 during the year. According to conventional accounting, we would have absolutely no notion of that; the division's assets would be the same. According to human resource accounting, we would see that division A had maintained its human resources, while division B had lost $500,000 in human assets.

Now, let's look at the impact of this upon the income statement. First, according to conventional accounting: division A and division B both have 10 million dollars in sales and 8 million dollars in operating expenses in the fiscal year, giving them a net income of 2 million dollars. However, if we take into account not only the operating expenses but the loss attributable to the write-off of human assets, we find that division B suffered $500,000 of greater total expenses in losses, which resulted in a net income of $1,500,000. This will not show up in conventionally prepared financial statements, and, in fact, management does not receive this kind of data. Now, in the long run, perhaps just a few years, the organization will incur very heavy replacement costs. However, some managers may actually be in a position, for such a short time, that they can liquidate their human resources without incurring such costs, simply by waiting and moving to other positions. Their successor will have to pay the price!

EXHIBIT 7

Comparative Balance Sheets, 1970-71
Divisionalized Enterprises, Inc.

Conventional Accounting Vs. Human Resource Accounting

I. Conventional Accounting*

	Dec. 31, 1970 Divisions		Dec. 31, 1971 Divisions	
	A	B	A	B
Conventional assets	$50,000	$50,000	$52,000	$52,000

II. Human Resource Accounting

	Dec. 31, 1970 Divisions		Dec. 31, 1971 Divisions	
	A	B	A	B
Conventional assets	$50,000	$50,000	$52,000	$52,000
Human assets	5,000	5,000	5,000	4,500
Total assets	$55,000	$55,000	$57,000	$56,500

* Numbers in $000's.

EXHIBIT 8

Income Statement 1971
Divisionalized Enterprises, Inc.

Conventional Accounting vs. Human Resource Accounting*

	Conventional Accounting		Human Resource Accounting	
	A	B	A	B
Sales	$10,000	$10,000	$10,000	$10,000
Operating expenses	8,000	8,000	8,000	8,000
Losses	-0-	-0-	-0-	-500
Income	$2,000	$2,000	$2,000	$1,500

*Numbers in $000's.

The purpose of the second concept, replacement cost, is to indicate what turnover will cost the firm in the future. It can be used in terms of planning for replacement of people; it will also indicate the amount that an organization can save by a "turnover-control program." The opportunity cost of turnover indicates the magnitude of the total economic sacrifice that is actually incurred by an organization. It indicates the value that has been lost by having people leave an organization at a point in time.

Conclusion

In conclusion, the purpose of human resources accounting is to develop valid and reliable methods of measuring the cost and value of people to an organization. The ultimate objective is to facilitate the effective utilization of human resources. One example of an application of human resources accounting is the measurement of turnover costs. There are others, but they are much beyond the scope of this presentation. Finally, human resources accounting can provide management, I believe, with the data they need to become aware of the costs of turnover--data which may actually indicate the need for a greater attempt at controlling the costs of turnover, and conserving valuable human resources.

PRESENT MYTHS AND FUTURE REALITIES ABOUT TURNOVER

Marvin Adelson

The work that I'm talking about is the result of a conceptual study on what new perspectives it might be possible to take toward the manpower adjustment system at the national level that might lead towards new kinds of policies. So I'm not going to focus principally on data, but on concepts. And I'd like to ask you, for the moment at any rate, to just relax, accept some of my premises for the time being, see where they lead, and then, later, if the result is unsatisfactory, discuss and argue about them a little bit.

My remarks this morning are going to build on the ones that came before, but they will be of a basically different kind. A fundamental fact of the labor market, based on the data we've heard so far and on other data gathered nationally, appears to be that there is a fairly high rate of turnover. A present myth that stands out is that it is desirable and realistic to think in terms of a fairly stable labor force, either over all or within a given firm. The reality, with some exceptions, is otherwise, I think, and that reality is becoming more unmistakable as time goes on.

Turnover, unfortunately, is one of those phenomena that can't be dealt with entirely within the firm. That is, it's a relational problem, having to do with a person in a given job or situation now, and in another job or situation at some other time. Hence in addition to policy and procedural questions within the firm, there are also serious turnover considerations at the national policy level.

We used to regard the employer as the independent variable in the labor market: He made the major decisions, and the flow of employees followed those decisions (or the aggregate of those decisions) in one way or another. According to that myth, employee decisions were essentially dependent variables. From what the first speaker said, however, we have some evidence that employee decisions are starting to become, at least to some extent, primary or independent variables. Values are changing. What individuals are seeking in the labor market is starting to be different now in a fairly big way from what it was previously. This may be a transient phenomenon of no long-term interest or value, or it may be a precursor of some important trends to come. But certainly, one important perspective of the labor market is the perspective of the individual, and we want to look at turnover from his point of view.

People, I think, are no longer adequately dealt with, in labor market terms, merely as a resource. Their non-resource attributes have to be also the object of policy. By that I mean that it's not any longer adequate to feel that we need only patch up the residual unfortunate consequences of past labor market policies to have an adequate manpower policy. It's no longer a question merely of sweeping the people off the street into jobs as soon as possible, or filling unfilled vacancies from the available pool as quickly as possible. There are some deeper values that are coming to the fore, and we have to attend to them.

If turnover is as big a phenomenon as the data suggest it is, we should examine it closely. To the individual, turnover looks like transition making. He has the task of deciding where his best interests lie at any point in time. He is a decision system all by himself. We tend to think of the employer as having a class of decisions, which he bases upon his perceptions of the value of his employees and other variables. Although we tend not to regard the individual as a decision-making system, he is one. Can we say anything constructive about his decisions?

An individual does make transitions from job to job, from school to job, from job to school, from job to welfare dependency or retirement, from military service to work, etc. Some of these are forced, or involuntary, and some are voluntary. In either case, there are costs he has to pay. Professor Flamholtz talked about the costs to the employer's decision system. The individual has a corresponding, though different set of costs. Frequently, these costs are very high compared to his ability to defray them. When that happens, the quality of the transition that he can make is not as good as it might be. If he were able, for example, to take a little longer or be better informed in job search, if he were able to move from one place to another, if he were able to get an infusion of training or add to his education, if he were able to hold out--all these might improve the quality of the transition that he could make. We'll come back to these concepts later.

We've always assumed that a job is a good thing. If you didn't have a job you carried a certain kind of stigma, even if you didn't have a job for a very short period of time. And those people who don't have jobs for very long periods of time are in many cases stigmatized almost irreversibly. Well, a job is a good thing up to a point--for many people and for many jobs, but not all of them. Let me give you a list of reasons why jobs are good, and then a list of reasons why jobs may not be so good. A job is obviously an opportunity to be productive and to be remunerated for it, and that is obviously pretty good. It's an entitlement not only to consumption as a result, but to social standing which is also good. It gives the individual access to productive resources

beyond his own capabilities to supply them; in other words, it capitalizes the individual so he can increase his productivity. It gives him membership in a community of workers. In our society with our value system, it contributes to his sense of identity. (When you ask somebody who he is, almost the first, if not the very first, thing he says is what he does.) In some cases, it's a medium of creative expression. It provides a structured framework for personal interaction. It provides a modicum of independence or a great deal of independence, depending on other things, and it provides for many, a meaning for life.

On the other side, it's clear that a job preempts time which is usable by individuals for other things. Some of those things will increase his value, such as education, opportunity-seeking, and so on. It preempts time which he might use to better himself through political action, for example, or community action. It subjects him to rules and conditions which he may not like, of which he may not approve, and over which he has very little control. It may create psychological or somatic problems, such as ulcers in executives or resentfulness in menials. Those problems tend to be invisible and allocated to other causes in the case of those of us who are used to working. When people who are not used to working start to work, however, there may be very serious problems of a variety of kinds. There are even cases where society has ruled that an individual may not hold a job--in the case of children. So, at least, a job is not unequivocally good in every case.

Now, I think it is useful to think of jobs as arranged on a continuum. Some jobs build up the value of the individuals who hold them. I call these regenerative jobs, and put them at one end of the continuum. Obviously, a research job is regenerative because it increases the special and unique knowledge of the individual engaged in it. Menial jobs are at the other end of the continuum. I call those depleting jobs, because if you hold a job like that long enough you're not good for anything anymore. In terms of the individual's subsequent ability to make desirable (or desired) transitions, jobs are very different from one another.

(I'd like to have that slide put up, if I may.) I want to break down the employable period of an individual's lifetime into two general kinds of periods: one, job-holding periods, and the other, periods between jobs. I want to take a look at what happens to individuals in those two periods. I have here a diagram: We assume that when an individual starts a job, he has a hypothetical value in that job, which I call V.(A), the start value of the individual in a job. That's easy. Other things being equal, over time--the time line is down here, the scale is unspecified because that way I can say anything I please--other things being equal, his value would remain constant. But the

fact is other things are not equal, and typically there is a decay of whatever knowledge he starts with over time. That decay comes from several sources: one is that part of his knowledge is unused for a while and may tend to atrophy; part of it is that the job situation changes and his knowledge and skills are no longer as applicable as they were. There may be technological obsolescence, which, over time, will decrease the individual's value.

Now, on the affirmative side we can talk about E(t), the increment due to relevant on-the-job experience. Obviously, we all know that if you work for a while, say, putting slides on machines, you get better at it. There are some variables you become sensitive to; also, you learn how the employing organization works; there are a lot of things that increase your value over time. And so we superimpose that on this declining hypothesis. There is another increment which we can attribute to training, anything that is deliberately done to increase the individual's value.

It is clear that if my ideas about these increments and their shapes are even approximately true in any interesting class of jobs at all, we can conclude that from the point of view of either the employer or the employee an individual's value reaches a peak--it may be a flat peak or a sharp one, but it peaks up at some point, after which it declines. Now, I'm not saying that all jobs follow this characteristic, but I think a lot of them do. And suppose that it's true, from the employer's point of view it is clear that at some time there is an incentive for recharging the individual. That is, if he wants to avoid the cost of decreased value of the individual, or productivity of the individual, there is a time around the peak--just after it or just before it--when he can make an infusion of some kind in order to shift that peak to the right. In principle, that peak can be shifted over to the right indefinitely.

Now, the individual has a problem in the game-theory sense. He has to watch the employer's behavior. If he has any sense of this kind of relationship at all, there comes a time at which he has to decide that the employer is not going to make that infusion, and he can look forward to a decrease in his own value--not only in this job, but probably on the job market as well. Therefore, there is a "proper" range of times for him to consider leaving. If he does it too soon, he hasn't reached his maximum here. If he does it too late, he's peaked out and he's on the downhill side of the curve, and he'd better have moved before his value has gone too far down.

This explains why it's rational for employers to expect turnover unless they make some sort of investment. We heard figures earlier about the costs of turnover, showing that they are great enough to warrant considering making that kind of investment.

From the employee's point of view, then, the peak may be shifted to the right by a variety of means. He can ask for a change of job in the firm or access to training opportunity, or he can seek a new job, and so on. This is the picture, roughly, of what happens within a job. It is a very crude model, but I think it is suggestive.

There is the other question of what happens between jobs. Three things can happen. Suppose we decide arbitrarily to measure what happens in economic terms. (We could also measure in terms of job satisfaction or other psychological variables, but suppose we just look at the economic-financial variable, because you can quantify that pretty easily.) Obviously, as he goes from one job or situation to another, he can increase his income, he can decrease his income, or his income can remain the same. I think it's fair to say that in the case of involuntary terminations, the expectation is negative. That is, other things being equal, he may not be able to do as well on the outside; but I don't have the data on that, and I don't think it's terribly important.

The other side of it is that there are in that transition process an awful lot of payments of various kinds an individual has to make. Psychological costs are very high. Any of you who have made important transitions, especially those that involve a household move, are aware of that. Within the aerospace industry, where I got a lot of my experience, there was a provision based on defense contracting procedures to reimburse individuals for the costs of transitions. Moving costs were paid. There was usually an opportunity to increase income by about 10 percent--this was during the most vigorous phase of the industry's growth some years ago--and there were other hidden provisions which made moving at least reasonably attractive, so people did quite a fair amount of it. But in other industries, and even in that industry now, those provisions have diminished or disappeared. So, individuals not only have psychic costs but monetary expenses, family costs, during that period of time. And those can amount to an awful lot. I went back to do a study in Washington on scientific and engineering manpower in 1963 and 1964, and nominally I was to be reimbursed for all out-of-pocket expenses. But it turned out that even so, there were thousands of dollars of hidden costs that I had to cough up, that one simply could not be reimbursed for. I think that in our society people are constantly paying costs like that, without any very good provision for reimbursement. Where they cannot pay them they may not be describing the optimal path between jobs, if our objective is to maximize the productive use of those human resources over time.

So, there are individual costs involved. But when individuals cannot find their most productive use, you can also say there are important social costs involved. It may not be the best strategy for a person to go from job A to job B. It may be the best strategy from everybody's point of view for him to go from A through training course C into D. But there's no way for him to arrange for that at the critical time. I'm saying that we have to take a direct look at transition making as a fundamental event in the manpower adjustment process. We have to look closely at what the costs are and to whom they accrue and seek ways to provide equitable means to defray the costs. They may be recovered in principle, through increased productivity of the labor force generally, decreased mental affliction, decreased violence, and in other ways.

All right. That's the basic premise, and I want to explore ways of accomplishing that. There are things that employers can do, things that labor unions can do, things that individuals can do, and things that governments at various levels can do. Let's take a look at what those things are.

What can employers do? They can make jobs more regenerative. What does that mean? It means that in designing jobs in the firm, they must take a look at that simple variable, the individual's value, at both the beginning and the end of whatever trajectory he describes within the firm and try to find ways to maximize the increase of that value over time. There are some internal incentives for this, because the cost of losing an individual and having to replace him can be high. When employers understand the costs better they may try to find better ways of making jobs regenerative. They can increase training opportunities and arrangements. They can provide more termination notice for employees so that they could seek other employment more effectively while still employed--though here we get into a controversy over values, I'm sure.

What can the individual do? Obviously, the individual can be alert to his own opportunities. He can put aside some funds to pay for these uncomfortable transition periods when they arise. He can encourage public actions in his favor. And he can encourage labor unions to be helpful.

What can labor unions do? They can acknowledge the idea that we have a society in which the work structure is subject to more and more rapid change. They can therefore decide increasingly to act not so much as holding tanks for people, keeping them assertively in the same job classification that they have been in and seeking employment and benefits in those categories. Instead, they can encourage and help support individuals in becoming something else than what they are--that something being more satisfactory to the individual and more in demand in the job market. So, unions can become transition-oriented.

What can the public do through government arrangements? This, I think, is the most interesting question of all. The answer is, of course, find a way to pay for expensive, productive transitions, to support individuals more effectively in their process of becoming. And here we come close to the question of national incomes policy. The point is that any arrangement that allows maintenance of the family unit without also increasing its chances for improving its lot may in the long term diminish motivation and impede growth in productivity. We might consider augmenting such a maintenance plan with one that allows for peak allocations of funds to be made for transition-improving purposes.

What do I mean by that? There are some examples around. The G.I. Bill is precisely a transition-facilitating arrangement, in which large payments are made for short periods of time to increase the chance that an individual can reach a higher productive level. It has worked very well, especially after World War II. And so there is some evidence that this kind of policy makes sense. But the public also makes other investments in improving transition making. First, in initial education: when you send kids to school for a long period of time, you are in part pumping up their value at public expense in the expectation that employers and the public generally will later benefit from this investment. The fact is that employers, and especially depleting employers, are therefore subsidized by the public. The public invests in preparing people for employers' use. Employers who reinvest in their people are making an equitable repayment, but employers who deplete their people are not doing so.

The public also makes an investment in the final transition out of the labor force, that is the transition into retirement. Social Security and other arrangements are paid for partly by the public. The public provides maintenance between jobs--unemployment benefits, welfare provisions, and so on, but only at a very low level. The public also provides certain on-the-job training incentives, and opportunities, especially under more recent government programs, and there are certain categories of people, such as convicted criminals in prisons, who are trained at public expense. So, there is certainly a precedent for public support of transition making, but these are generally patchwork kinds of arrangements. They don't make the system look coherent from the individual's point of view. He has to go to different agencies for different purposes at different times. He doesn't understand the system very well. And in the aggregate, I think, it is fair to say these arrangements do not have the social and personal benefits they should have.

Now, here is my radical proposal. It's highly controversial. It needs a lot of study, but it should get some serious study. A joint fund should be established between individuals, employers, possibly labor unions, and the public through government. This fund would be built up through means which I'll describe in a

moment, and it would be used like a G.I. Bill by ar individual for certain purposes, either to get some training, to increase his education, to move, or for other justifiable reasons consistent with improving his career trajectory. Individuals would be taxed or could contribute voluntarily to a certain extent. Labor unions would contribute some share if they could be induced to do that. Since the public would benefit by everybody being increasingly productive and content, there would be some incentive for the government itself to contribute to a pool. And finally the question is, what do we do about employers' contributions? If employers are, in fact, benefitting from prior public investment and from the investments of earlier employers, then to the extent that they deplete that earlier investment, it seems equitable for them to be required to pay for that depletion in some way. To the extent that they behave well from a manpower point of view, that is, by building up the capability and the value of their human resources, they should be given incentives instead: payments, rewards, tax forgiveness, or something like that.

How would this behavior be measured? Obviously, you don't want the government judging employers' performance if you can help it. Assume that for each class of industry, however there is known experience in terms of what happens to people after they leave the employ of an employer. Whether, in fact, they improve their state, or their state deteriorates subsequently. An industry board, composed of employers, union representatives, and public members could judge the "manpower performance" of any given employer. The theory is that an employer's responsibility does not end at the point where an individual terminates from his organization. I understand, from the employer's point of view, how that appears to be an undesirable principle to lay out, but from the public's point of view and from the point of view of the individual, it is a very important one. And I think it's going to be progressively recognized that employers' interests are well served by it also.

Okay. So you could take statistics on the future trajectories of individuals who have left a given employer, compared with industry standards. To those employers who increase values of their employees over time, make payments or give tax forgiveness. For those who deplete value of employees over time, put the opposite sign on that variable and charge employers a certain amount for their replenishment. That way you could maintain the transition-aiding fund. But the more important function of this arrangement is not the actual operation of it; it is the additional incentives it creates for employers to act in such a way as to be regenerative in the first place--that is, to invest adequately in human resources. This is a slogan that we've heard for years, but one which has been actually more honored in the breach than in the observance. So, with that admittedly provocative proposal I'll step down and look forward to questions and discussions later. Thank you very much.

REDESIGNING JOBS
A SOCIO-TECHNICAL APPROACH

Louis E. Davis

I've been puzzling over how and what I might address myself to today in relation to the area of interest, that is, the design of jobs or its specialized version, now popularly referred to as job restructuring. I find myself in a situation which almost requires me not to look at the mechanics of this specialized question, but rather to consider it in its very large social framework. I'm more than aware of this because I spent last week with the management of one of the largest companies in the United States, launching a developmental program addressing the kinds of questions that I am going to raise. So, I don't know how--at least I feel terribly uncomfortable talking about the mechanics of reorganizing jobs, of restructuring jobs, because the setting in which we seem to be finding ourselves is so markedly different, and all signs for the future indicate that it will be more different still. I find, in reviewing the present positions of management, looking at what they are comfortable with in terms of their assumptions just doesn't seem to be able reasonably to carry forward into the future.

In this particular context, I'd like to look with you at what's bothering me. I will hold for the question period--and this may be unsatisfactory to some people--specific questions relating to particular problems until after Barie has talked about the development at Proctor & Gamble that he is associated with. Now, what's bothering me, I think, is what's bothering many managements of all kinds of organizations in attempting to address themselves to two central issues of our time. These issues are going to become stronger, and management will attempt to do so in a setting of considerable social turbulence into which we have moved and which, from all signs, looks as if it's going to continue. The two issues--which I won't say very much about, but they underlie what I will talk about--are alienation and disaffection of members of organizations, all kinds of organizations. And the very particular need that most organizations and most managers are attempting to look at is the adaptability of individuals and their institutions to the very significant and rapidly occurring series of changes.

When I began my work in the job design area in 1954, almost too long ago to be comfortable about, I had been talking to managers, justifying why I was asking the kinds of silly questions I was interested in, why adaptability of people in organizations was, in fact, an important question or not an important question. The world has caught up with me, and now it

seems that the shoe, in fact, might be on the other foot. The shoe is on the other foot in that managements now of all kinds of organizations have to bear the risks of not addressing themselves to these questions. The kind of work that we're doing and its network of professionals and researchers in about a hundred firms in the United States and a large number of firms in Western Europe are all addressed essentially to learning how we can grapple with this situation.

But how do we begin. As I said, I was wondering how I might begin this discussion. We're caught up now in an era of turbulence in the social environment, exceedingly rapid technological change. There seems to be a growing uncertainty for managers, for members of organizations at all levels from the bottom to the top. And in fact, in some instances, I'm afraid, too often, in the face of this growing uncertainty there is a clinging to the past. There is, in some instances, an almost psychopathic clinging to the past--past answers, past values, past solutions. In some government agencies, there are even enormous battles being fought to protect the monuments of the past. That, of course, we have to view as a response to the fact that we are leaving one era we all knew and all grew up in, and that we are entering into--in fact, some of us feel we're well into it--a new era. There is a growing body of literature which addresses itself to characterizing these two eras. What I'm referring to is the industrial era that we all grew up in, which began roughly about the 1800's, 1790, and what we're seeing today, which has been characterized as the post-industrial era that, some believe, began with the end of World War II. At the moment we are in an overlap between these two eras. We're still holding to the values and the beliefs and the insitutional learnings that we knew from the industrial era, but the problems that are impinging upon us are the problems of the post-industrial era. I'd like to just say where I think we are in terms of managers, in terms of industrial relations directors, personnel managers, and so on.

I think the choice that most organizations now have is to address, as seriously as they can, the issue of values--looking at their own values relative to themselves and the members of their organization, and to develop appreciations of futures that are impinging upon them. Despite the fact that I once regarded all futurology as sort of going down to see a Madame Zombie who had a crystal ball, I now feel myself wearing one of these pointed hats that one sees in the Los Angeles Times comic strip of the soothsayer, you know, with all the stars on the pointed hat. The reason for it is that we hardly know how to address the present without getting some reasonable understanding of what the future is bringing upon us. And this is a totally new game that we have to learn to live with.

Now, let's perhaps begin by looking at how we got to where we are today without writing the world's history over again in a short period of time, because I think it would give us a bit of understanding as to why and how one would wish to address issues that are before every organization--issues of entry jobs, of what to do with unskilled, untutored people seeking entry into organizations. That is and will be a feature of the world we live in--what we do with the issues of the adaptability of members in the organization. Do we need to continue in the kind of framework that we have been accustomed to? What will this mean for industrial relations, industrial relations as a profession as it has been viewed from both sides? From one side, it's been viewed as a portal for instituting changes within organizations to put them on the road toward trying to learn to adapt. And from the other side, it's been viewed as that segment of the organization that mixes concrete and sets all existing situations in large blocks of concrete which it takes the devil to break up later on to get any change. Take you choice, probably both elements are present in any organization.

With this kind of background, I would like to say a few words in general, summarizing some of what we know, then have Barie talk about one particular situation and throw it open to questions that you may wish to raise. Now, Angus asked me to mention that the Institute will be publishing, in the next two or three months, three papers in its reprint series addressed to most of the questions that I will be talking about this morning: The Coming Crisis for Production Management: Technology and Organization; Readying the Unready: Post-Industrial Jobs; and, Job Satisfaction Research: the Post-Industrial View. All of these papers, obviously, are by me; otherwise I wouldn't be announcing them, would I? They're in the mill, they will be reprinted very shortly, and I think you'll find them interesting.

Additionally, I hope this morning there can be some stimulation of interest on your part for a development that is now taking place at UCLA, which we expect to have launched by next fall. This is the development in the Graduate Business School of a national research center on the quality of working life. We are looking for two kinds of support, for some money, of course--we have some and need more--but also for interested organizations which want to work on these questions. Both are important. A prospectus is available for those of you who might be interested.

Now, let's take a look at what the industrial era has done for us and why we are where we are, and at some of the enormous discomfort and disjointedness that are before us. The only way to look at this is to look at culture, the industrial culture as we've come to know it, which includes beliefs, values that we all hold and particularly hold in relation to our actions within our organizations. Because we do find that this culture is not very inclusive, most of us who live in formal organizations live two lives--one within the organization, and one outside of it. Let's look at life within the organization.

Here we find from the industrial era the beginnings of such beliefs, such values as that which is called the Protestant Ethic, which sanctifies work and measures man's success by work. Of course, I raise this issue now because for very substantial segments of our population in the post-industrial context, there are all kinds of questions about work and about whether man was put on earth to work or whether the reverse might be true. In highly sophisticated technological settings, the technology has so shifted that nobody quite knows what work is in the conventional sense of the word. I'll talk about that a bit later. Related to this has been the development, over the years, of what one of my close friends in sociology has called the view of man as an operating unit. I'm referring to the work of Robert Boguslaw, who has been making some studies of that peculiar society, "the industrial organization." What this notion says is that men can be adjusted, they can be modified, they can be changed by training, by incentives, for the good of society, and, of course, that means for the good of the organization, and that, in fact, we have a right to do so and it's quite acceptable to have this done.

This is a widely spread value which everybody shares--or shared until now. It is subject to question, however. When students run around campuses with signs, saying "Don't spindle, fold, or mutilate," one of the things they are saying very clearly is, "We're not going to be operating units in the ways in which we have been before." When the Norwegian trade unions got together a few years ago and said to the Norwegian government, and then in concert with the confederation of employers in Norway, "Yes, we want to industrialize the country further; we want to enhance the investment in building industry; but we don't want to become American," it was another way of saying, "We don't want to become subject to and victim of the way in which industrial organizations in fact operate in the United States." They were very serious about it, and the whole series of developments that have taken place since indicates that there are other solutions than the American solution. And it's time for us who have started earlier to rethink our own positions on these particular issues.

A third belief which is terribly ingrained within our formal organizations is that which concerns the reliability and, therefore, the notion of responsibility relative to individuals. It's very widely held that in our production systems, in our business systems, the machines are very reliable parts of our systems, but the human elements are terribly unreliable parts. And, of course, if you and I sat down to think out what you would do with unreliable parts, you would come to the same kinds of institutional arrangements that we now find in business and industry; they are directly traceable to the deeply held position that human beings are, in fact, unreliable. The outcome of all this is that men in organizations are indeed spare parts. We design production systems; we design business systems; we design organizations as if men were spare parts and, of course, men being men highly adaptable become spare parts. This is the way they think and this is the way they behave. What this does for the question of adaptability is another matter. Most current training schemes, whether promulgated from Washington or promulgated from within training departments, are essentially those at present which depend upon and support the spart-parts concept of men. Something again that we particularly need to look at because it'll be of no service to us in the future.

Let me mention a few more values and then look at technology, which is equally upsetting in terms of what the future is going to be. I think here that three more values just might be worthy of mentioning, although we've all talked about them as if we don't believe them, but we operate as though we do believe them. One is, of course, that labor is a commodity--that the transaction between men and organization is one of buying and selling, and this is the major transaction and the focus is on those relationships. Unfortunately, industrial relations has more than contributed to supporting this particular position by the very, very considerable attention it gives to these transactions. Second, that materialism in its narrow sense, that is, higher economic standards, more material benefits, in fact justifies the ends which need to be achieved. And lastly, we have a particular and peculiar syndrome--and I think this is more American than anything else, then anywhere else--that jobs are essentially things by themselves. They are disjointed increments that exist by themselves. So, when we talk about entry jobs, when we talk about restructuring, this particular value gets in the way very quickly. A job is something that exists by itself when, of course, it's only an episode in the life of a man and it's only an episode in what goes on in an organization. The thinking out of the connectedness between job and what else is very, very seldom done. Of course, you don't need to do it if men are spare parts in any case; so it's very comfortable not to.

Now let's look at technology for a moment. Most of these values have been supported by the peculiarity of technology that existed in the industrial era and still exists for large numbers of organizations. Most of these organizations are beginning to move out of the industrial-era technology. I've been most particularly fascinated with this technology and its impact on the structure of jobs, on the structure of organizations. I just wanted to mention a couple of insights of mine which are relevant. I think the significant characteristic of the industrial-era technology which reached its height in Detroit-type mass production--and it still goes on--is its particular flavor, its particular feature, which I call deterministic. What I mean by that is what has to be done is known someplace by somebody, by some superintelligence--whether this is a planner, or a manager, or what have you; when whatever it is that has to be done is known, and how it has to be done is also known or knowable. If these characteristics are present, then, of course, we can manipulate our organization. We can assign jobs, we can do anything we wish, based upon the social values that we hold. And this is how they've been locked together. If you know everything that has to be done, you have a choice--to treat men as spare parts or not to treat them as spare parts.

So, there's been a reinforcement of this, and an enormous amount of our thinking depends upon this particular characteristic of technology. Unfortunately, this characteristic is disappearing. As the newer technologies are arising--call them automation, call them cybernation, call them computer technology, whatever you wish--the deterministic aspects, that is, what has to be done and so on, are now soaked up by the machines; they're soaked up by the technology. The routine stuff gets soaked up by the technology. There's still a lot of it around, but most of the routine stuff is now not in the mainstream of doing what the organization needs to do; it's supportive of doing it. When the routine stuff gets soaked up, we find that the new technology has a new characteristic--a characteristic we hadn't thought about which raises all kinds of new questions.

For two and a half years now, I've been working with one of the world's largest organizations deeply enmeshed in frontier technology and production of metals. I entered upon the scene because a simple technological change, the addition of a computer to their production system, suddenly brought about a total mismatch between the jobs they had, between the way in which men were managed, and the structure of departments and units which no longer seem to hold together because the deterministic element of the technology that they had had disappeared. A new flavor of the technology

is that it is stochastic. That is, whatever men have to do in the organization--they do lots of other things--their essential contribution is to absorb the variances, absorb the unexpected that arises because the routine and expected stuff is already buried within the technological artifacts, whether it's a computer, whether it's an automated production machine, or what have you. And the same applies whether you're in an office or whether you're in a production company; that doesn't make any particular difference.

Now, your response to me will be, "Well, that's okay. My firm doesn't have any of this. We still make widgets or process paper with a quill and a green eye shade, and we're safe from all this. We still make widgets by carving them out by hand and we're safe from all this." Well, you're not safe from all this. What happened in this firm I'm referring to is that in those departments in which this new technology appeared, we had to redesign jobs and redesign the organization. The results were enormously satisfying jobs for the individuals, not because we wanted them that way, but because in the stochastic situation people have to regulate and control their worlds themselves. There isn't any way that anybody else can do that for them. Supervisors don't do you any good; department heads don't do any good unless you're prepared to have a foreman for every worker, and I hardly know of any organizations that are quite prepared to go that far. What in essence happens is that what we now think of as direction by a foreman becomes an essential part of the jobs of people running the production system at the first level. When we did this in those departments, the company was threatened by a strike. It was threatened by a strike because men in other parts of the company said, "You can't discriminate against us; the kinds of jobs we have to do and the kinds of ways in which we're managed are so inferior to what we now see that we want that, too." So the social spread or the notion of social diffusion operates so rapidly that nobody is going to be safe. And hiding behind the fact that you don't have advanced technology is not a very wise future course of action.

The other aspect of technology that's terribly important is that it is so productive. The outcome in terms of materials is so enormous that within the social environment we are very comfortable now in thinking that scarcity is of the industrial era, but not of the post-industrial era. That is, the satisfaction of material needs is going to be possible by the appropriate application of this superior technology. That being the case, all kinds of questions are being asked now about work. "What am I here for?" "What am I going to do?" "What's my role?" "What does work mean to me if I don't have to worry very much or very extensively about material needs." Other issues are arising, and they are connected back to technology as well as, of course, to the shifts that are taking place in the social environment.

Now, these are some of the background elements of the social and technological environments that color almost everything that we have to do and have to address ourselves to. They raise all kinds of other questions. But, in addition, let me mention something from the economic environment in the longer run rather than in the specific of what's going on today which also colors the situation. The pervasive feature of the growing post-industrial era is that the social economic technological environments are taking on the features of turbulence. And what we mean by this essentially is that problems are arising which can't be easily answered within any single institution. There is a growing degree of uncertainty about what would be a useful solution to various problems. The rate of change is increasing at a growing pace. The relevant uncertainty for individuals at all levels of organizations is beginning to test the limits of human adaptability. And, very clearly, it appears that the earlier forms of adaptation that we had in organizations just probably will not be suitable in the future.

This turbulence also colors why managers are beginning to ask the kinds of questions which involve the kinds of interventions that we are looking at. Those organizations do want to survive. And they not only want to survive, but they want to survive by adapting in an orderly way to the future as it is unfolding before the organization.

Now perhaps I might say, before I report some general findings about jobs, about their redesign, and about the change of organizations, just something about the notion that we've recently been developing, which is both a way of looking at the world and a way of studying the world--in terms of techniques of studying and in designing the solutions. Some of my students call it a religion, but that's to be expected since some of us are very much engaged in missionary activities and missionaries have to be viewed as being religious in terms of where they stand. What I'm referring to is essentially this notion called socio-technical systems, which has a jawbreaking name; I wish we could get rid of the name, but not the ideas that are behind it.

There are two essential premises to looking at the world as we look at it through the socio-technical-systems framework. The first premise says that any organization that is engaged in purposive activities, seeking to accomplish some defined set of ends, has to do this through a social system that it has, and has to do it through the use of some technology that will aid it in getting its work done, that these two are so interlocked that we can't study one without the other. We can't design one without designing the other, but we have to try to do this in a joint fashion because they are absolutely

locked together. So it's no longer comfortable, or in fact useful in terms of solutions--we think--to have somebody look at the social system, the questions that arise within it, and then have somebody look at the technology, or, vice-versa, design a technology and somehow fit a social system to it. Neither of these approaches seems useful for the future, because they in fact produce in our experience outcomes that are less than those that are possible by working both together.

The second premise that I think is terribly crucial is the socio-technical system's view of the world which says that any organization can't be understood, can't be dealt with, without seeing it as a part of the larger environment in which it happens to be embedded. And, in fact, the walls, or the boundaries, to use our own private language, around the organization--and the organization might be a single individual or a group or a larger institution--the boundaries around the organization are full of holes, what we call permeable. Whatever is going on on the outside leaks in to the inside. It affects the individuals, and it affects the functioning of the institution. And, of course, if we truly believe something about ecology--and not physical ecology, but social ecology--what the organization does affects the environment and it in turn back-affects the organization. It's a back and forth process of attempting to achieve some particular balance.

But steadying an organization or designing one without very, very specific detailed knowledge of the environments in which it is embedded is a hopeless task, we see. It just can't be done if the organization is to achieve some balance and be able to go on and do its work. For instance, in this reference I made before to this large metals-producing company, a number of their plants are located up in northeastern Canada, French-speaking Canada. It became very important for me to understand in detail the impact of the organization on these communities, the aspirations and needs of the members of these communities, what and how this might feed back into the functioning of the organization. Management had to begin to ask itself questions which they previously thought were far outside the realm of their concern, if they were going to get a move on to achieving some solutions that would permit them not to be having to rework problems every single day.

It's these two notions which color the way in which we look at the world, and in so doing perhaps I should turn very briefly now to a few notions that summarize the various and sundry studies done by a large number of people. I use the word studies advisedly--they're not research studies in the conventional sense because we don't feel we can learn anything by observation. We only can learn something by aiding organizations

to change themselves in relation to the problems they have and learn from that process, and that in itself is an interesting new notion that we've learned to manage and utilize.

I think I can summarize all of the work that has gone on from roughly about 1952 until the present under four categories, in terms of the design of jobs or the design of organizations. The four categories are: responsible autonomy, adaptability, variety, and participation. Let me briefly say something about each of these, because again I will be saying something about them in a different context than perhaps you have thought about them in the past.

By autonomy, we essentially mean that we want to provide the conditions, the wherewithal, at the work place or within the organizational unit, so that the individuals or the organizational unit involved can in fact plan, regulate, and control the world which they have responsibility for. This is quite different than having planning, regulating, and controlling done by other agencies, whether these are foremen, planning department heads, and so on, who are not essentially at the interface between the individuals or the groups and the work that has to be done. They have other roles to play, and when autonomy is introduced, a great many notions about management have to be changed. Part of the great headaches that we have is to work out what it means to manage under these conditions in order to have the developments take place.

Now, why autonomy? Well, we have found that the institution of autonomous behavior is very closely associated with the commitment of individuals to act when they need to act in a particular work situation. And if our new technology says that the only useful social organization is one that will act when it needs to and not when it's instructed to, we have to satisfy this particular condition. It's also intimately linked to the question of alienation and satisfaction of individuals and organizations in the work context. And I, remember, am summarizing a whole series of studies which were begun for different purposes, but all seem to point in this particular direction. So, autonomy aids in satisfaction, and it aids in learning, and it aids in achieving what we're looking for in part in adaptation.

Now, if we turn to the notion of adaptation, we raise a whole series of questions which are normally not raised. We raise questions about how individuals can learn, how organizations can learn, because, in fact, most of them don't learn now. They assign the learning to a specialized staff group as if that staff group sitting out there were, in fact, capable of doing the kind of learning that has to do with what's going on in the organization--how individuals and groups can grow, can adjust, can develop. It's these kinds of questions, then, that color both the context of what jobs have and the organization structure itself.

The third category, variety, is worth mentioning because it has two particular meanings. The first meaning, of course, is that organizations and individuals don't survive psychologically or in learning terms unless they are subjected to an environment which has variety in it. You all have heard about the experiments with deprived environments, in fact, stimulus-free environments, in which individuals really are lost, or they disappear mentally from such environments or, in fact, they can't stand it and go into various forms of psychotic behavior. So, variety means something in those terms. It also has another meaning in social-systems terms. Variety is in fact a general requirement for all intelligent behavior, which means that if we want to see any problem-solving take place, if we want to see learning take place, the assumption is that within our organizational unit or within the individual, as may be required, the requisite response capability will be present and will be required to match the potential variety in which the unit has to survive. So it has meaning in that case.

Now the last category, participation; and here I am referring to it quite differently than it's referred to in the common literature. Most of the Norwegian work very much indicated the contribution to growth, to development, to adaptation, to commitment to goals, of the process of widespread participation within the organization to both the design of jobs and the structuring of organizations. And in fact, the Norwegian series of developments go under a very funny name, which in the United States sounds very peculiar; they call this "industrial democracy." We, of course, would not call it that. Industrial democracy means something else here. What they're saying essentially, which is a goal that they came to, was, "Can we have the same form of behavior inside our formal organizations that we find outside in the democratic setting?" And the commitment to democratic behavior in Norway, of course, is terribly intense and these values have been drawn into the organization.

So these are some of the general findings. You can't understand them very well without looking at some of the specific reports. Most of these are referenced in the three sets of readings which will be published shortly, and which, I hope, you will find it interesting to look at.

Now, within our research group at UCLA, of course, if we have to learn by cooperating with organizations to help them solve problems, we have to work very hard to develop access to organizations and to maintain a network with organizations--not only for ourselves, but for all other professionals and researchers across the United States and now in Western Europe as well. One of the very interesting developments, sparked

off by a series of training events and of growing understanding on the part of management, has taken place in the last three to four years within Proctor & Gamble. I'm going to ask Barie McCurry, who's kindly substituting for Charlie Krone, to talk briefly about a particular development that he's engaged in, which is very significant. He's engaged in the development, essentially, of a social structure of a system of management, of a design of jobs, for a plant, a factory, which does not yet exist, but will exist very shortly. It's precisely the kind of design, joint design of the social system and the technological system, that I referred to before.

EXPERIENCE IN DEVELOPING AND IMPLEMENTING A COMPANY PROGRAM

Barie E. McCurry

The plant that I've been involved in is under construction at the present time and is due to begin production in the fall of this year. I've just returned from the major organizational design session, which was held in a technologically similar plant in the East. The design team was made up of all managers presently named to the new plant, or about one-third of the total management organization, and included first- and second- level managers. There was quite a bit of apprehension on the part of these groups as to whether they would really have any input into the creation of the organization design. By the end of the session, every one of them had developed a sense of ownership in the design. This would tie back to what Professor Davis called management needing to be really supportive of an organization in which they work.

The planning stage of the session was co-lead by myself and a central staff organizational development specialist and made use of systemic approach. The first stage of this approach was to identify the environment that the group felt they would be working in. In other words, the plant was viewed as a system and the first stage was to develop an appreciation of this system's environment, both within the corporation and within the community--the political structure of the state and local area.

In the second stage, individual statements of an ideal work climate were combined into a statement of an ideal plant culture. And they very quickly got off the idea of "Well, we have to have a profitable organization." They said, "Okay. That's a given. We have to have a profitable organization." But they also said they wanted some freedom to move around in that organization, to take risks, to experiment, to try new things, to make decisions about how the total operation of the plant would go. They wanted to have a chance for personal growth. They wanted to have a culture that was supportive of them inside this plant, where the people they worked with would be helping them, would kind of pick them up if they fell down, and they also wanted to be able to pick others up if they tripped. They wanted an openness in the organization that allowed them to discuss their problems freely without fear of serious professional repercussions. They were very much opposed to competition in terms of their competing with other plants, or in particular areas of this plant, competing with each other. Instead, they wanted to set realistic but challenging goals, then achieve them, compete against themselves. I think, overall, they wanted to break down the barriers between departments so that everyone would have a piece of the total action in this plant.

The realization that this is what they wanted and the fact that they were allowed to try to design a system that would include these led to quite an exciting period, where the design team sub-grouped and three different designs were developed to achieve the kind of system they wanted. One design was based on the plant's technologies (converting, warehousing, services, etc.); another was based on viewing the plant as separate organizations for each of the shifts; the third design was based on the process flow of materials through the plant. The result of these three designs gave them an appreciation of what their sub-group had failed to do, and the ensuing synthesis is quite exciting as it looks now.

There will be no staff departments in this plant. All personnel will be working in production units. Each production unit will be different in that each will be helping the others with some of the support services. The concept of a "job" has been kind of stricken from any records in this plant. We've spoken of skills and skill requirements, and are endeavoring to link up persons with skills with skill requirements. It's been an organic growth of the design, without any organizational chart in a way dictating how the system will function.

The concept of autonomy has been included in the very fact that each unit is attempting to perform everything it can without having to go outside its unit. The management's primary goal is training the work force, or production force, and, conceivably, within a year to a year and a half, our management needs will be cut in half. The idea, of course, is to turn over management supervision of the workers to the work force. The work force will then gain that autonomy that it hasn't had previously.

Inside these work groups no one will be assigned to a task. The work group will be assigned to perform certain functions, and whoever is best at a certain function may perform that function more than others. At the same time there will be rotation around these various tasks so that there is a chance for job enrichment, and also variety in what they're doing.

This has been an evolutionary step for Proctor & Gamble. It's not the first plant they've had operating like this, but it's not like any other plant they have operating. The members of the management team that designed this system brought with them problems that they've had, things that didn't work where they were working previously, and they said, "how can we design a system that will take care of these problems?" It appears to be quite an exciting preliminary design that they've coma up with.

It is not a final design because one of the realizations of the team has been that they'd want to design as little as possible. And they've been very successful in understanding the amount of design that was required at this stage and have left as many of the specifics to be decided upon when it's required in order to include as many people as possible. That will, of course, include the hourly work force once they are hired. This is a kind of summary of where we are now.

A NATIONAL INCOMES POLICY FOR THE UNITED STATES

R. A. Gordon

I suspect that some of the things I'll say this afternoon are pretty obvious, but it may be worth reviewing some of those facts and then go on to examine some of the implications. I think the basic obvious fact we start with is the continuation of rapid inflation in wages and prices in the face of rising unemployment. Although from past experience we should expect a lag in the rate at which wage and price increases slow down as unemployment increases, the lag this time is exceptional.

Economists, generally, and other experts are at something of a loss to explain why wages and prices have continued to rise as rapidly as they have, indeed, even to accelerate the rate of increase in the face of rising unemployment. One can only come to the conclusion that some underlying forces that determine how unemployment is related to wage increases, some of these underlying forces have been changing--changing perhaps permanently, but changing certainly for the time being.

What we have today, at least since the beginning of 1970, is much more of what's loosely referred to as a cost-push inflation than a demand-pull inflation. We've been going, during the last 15 to 18 months, through something which with some reason can be called a recession, a fairly substantial slowing down in the rate of increase of money demand and an actual, modest decline in real output. But still, in the face of that, the rate of increase in wages and prices, until at least very recently, has shown little if any tendency to subside. Where there are demand-pull forces still at work in the economy, they are highly selective. In areas in which, for one reason or another, there are restrictions on supply either imposed by institutional restraints of one kind or another or because of a natural limitation of supply of available services, as in the case of the medical industry, we do continue to have bottlenecks in the face of a marked retardation in the rate of expansion of total demand. But in industries in which there are these bottlenecks, as well as in industries in which there are none, wages and prices continue to expand rapidly in the face of an approximately 6 percent unemployment rate, the highest we have had in a decade.

Now, as you know, it has become standard practice among the economists--indeed, the word has even gotten to the newspapers--to talk about the relation between wage increases and unemployment in terms of something called the Phillips curve, and I've put a couple of Phillips curves on the blackboard. They look just like the demand curves in an elementary economics textbook. On the vertical axis is the rate of wage increase, how fast wages increase,

and on the horizontal axis, the level of unemployment. The Phillips curve says nothing more than the perfectly reasonable fact that the higher the rate of unemployment, as you move to the right, the lower ought to be the rate of wage increase, as you move downward on the vertical axis.

Now, when I say that some underlying factors have been at work to suggest that the relation between inflation and unemployment has changed, what I'm saying, in the economist's jargon, is that the Phillips curve has shifted. And it has shifted upward into the right, so that for any given rate of unemployment on the horizontal axis we get a higher rate of wage increase and, therefore, a price increase today than we would have ten years ago.

What are some of these factors that have been at work? Well, let me say a bit about the statistics that we use to draw inferences about the relation between the national unemployment rate and the rate of wage increases. First, something that, I think, we all know in a general way, but which we don't translate into discussions of this kind as much as we should: it is harder to maintain a 4 percent unemployment rate today than it was 10 or 15 years ago, because of demographic changes. There has been a radical change in the age-sex composition of the labor force. Women have higher unemployment rates than men; teenagers, as you know, have much higher unemployment rates than adults. You are all familiar with the dramatic rise in the labor force participation rates of women that has bean going on in the post-war period. You are familiar with the results of the post-war baby boom that began to flood the labor markets of the country with teenagers in the early 1960s. I estimate that today, just because of the change in the age-sex composition of the labor force, this alone is enough to make the national unemployment rate 0.3 percent higher than it would have been in 1956 with the same unemployment rates by age and sex that we now have.

In other words, without any worsening in any unemployment rate for any particular age-sex group, just the change in weights, weighting the high unemployment rate for women and teenagers of today heavier than in 1956, makes the unemployment rate 0.3 percent higher than it otherwise would have been. What that means is that when we seek to maintain an unemployment rate of 4 percent today, we are unloosing the same inflationary pressures that would have existed with a 3.7 percent unemployment rate 15 years ago. And let's not forget that. One of the things that it suggests, among others, is the drastic need for a more efficient manpower policy than we today have, because the answer to that is in good part not through further inflating demand, but through pushing down the differentially high unemployment rates.

There is a counterpart to this change in the age-sex distribution of the labor force that I have been talking about. Corresponding to the increase and relative importance of teenagers and women, there has been a significant decline in the relative supply of prime-age adult men, and this shows up in their unemployment rates. In 1956, the national unemployment rate was 4.1 percent; in 1969, to take our last year of what we would call full employment or better, the national unemployment rate was 3.5 percent. That's a difference of 0.6 percent, or about a 1/7 decline in the national unemployment rate. This is what happened to prime-age male unemployment rates: for males aged 25 to 34, the unemployment rate fell from 3.3 to 1.9 percent, not quite by half, compared to the 1/7 decline for the national rate; for males aged 35 to 44, the rate fell from 2.6 to 1.4 percent, nearly by half; for males aged 45 to 54, the rate fell from 3.0 to 1.5 percent, a full 50 percent; and for males aged 55 to 64, it fell from 3.5 to 1.8 percent, or again by almost 50 percent.

These very low unemployment rates for prime-age males have shown up in pressure on wages. Indeed, in 1970, when the average for the year for the national unemployment rate had jumped to 4.9 from the preceding year's 3.5 percent, in every one of these age groups except the 25 to 34 group, the unemployment rate was less than it was in the much tighter overall labor markets in 1956; and in the 25 to 34 group, the rate in 1970 was about the same. In short, because of age-sex changes in the composition of the labor force, we have more bottlenecks and tighter labor markets for particular parts of the labor force than we had 10 or 15 years ago for the same national unemployment rate.

Now, just by way of a footnote, I might mention there are a couple of other ways in which the official statistics have to be adjusted, if you want to ask yourself what are the inflationary implications of, say, a 4 percent unemployment rate, or a 3.5 percent rate, or a 4.5 percent rate, or a 6 percent rate. First, there was a change in definitions in 1967, which had the effect of reducing the national unemployment rate by about .15, so that a 4 percent rate before became a 3.85 percent rate from 1967 on. As far as I can make out, that's the chief reason why in the 1970 Economic Report of the President the figure of 3.8 percent was used, rather than 4 percent, in defining the full employment goal. The second point to remember is that there is a war going on in Southeast Asia, and the United States has conscription. There has been a net increase of 300,000 in the armed forces during the last four years. Some of these young men now in the armed services would be unemployed were they in civilian life. I estimate this adds about one tenth of a percentage point to the official

unemployment figures. You add them up, 0.3 plus 0.1 minus 0.15, and you get about a quarter of a percentage point in increase. So, when we talk about a 4 percent unemployment rate today, that, presumably, has the inflationary implications of a 3.75 percent unemployment rate ten years ago. I thought this was worth mentioning.

Now, there are some other factors that have been at work. I've been talking about changes in the composition of the labor force and how to interpret the statistics. I would like to mention two additional underlying factors which, I think, have been shifting the Phillips curve up to the right. The first is the cumulative effect, and I would emphasize cumulative, of the rise in prices over the last five years. When we write equations for the Phillips curve, we say that the rate of change in wages is the function of, depends on, the current unemployment rate, the rate of increase in prices, which enters, of course, into collective bargaining contracts, and maybe some other factors. But the way price increases enter into wage settlements and wage determination in the market is an accumulative way. One year of a 5 percent rise in prices doesn't have the same effect on an increase in wages across the board as two, three, or four years of 5 percent increases in prices, or prices that have been rising first at 2 percent, then at 3, then at 4, and then at 5 percent. So, we are suffering in 1970-71 from the cumulative effect of past price increases, and this lag, cumulative effect, is showing itself in 1971 to a considerable extent offsetting the rise in unemployment that has occurred in the last 15 months.

The next point I'd have more difficulty in proving, although I've done some experimental work on it, and that is that not only do past price increases have a cumulative effect, but I would also argue that sustained periods of low unemployment have a cumulative effect. The Phillips curve relates today's change in wages to today's unemployment, or just last year's unemployment, depending on whether you lag the relationship or not. Now, I would maintain that four years of sustained low unemployment of 4 percent or less, such as we had from December 1965, when the unemployment rate fell to 4 percent, through December 1969, when it was 3.5 percent, a sustained period of very low unemployment like that again has a cumulative effect. You can see this in various European countries, by the way. Sustained periods of low unemployment give birth to rising aspirations on the part of labor, to the expectation on the part of employers that one needn't fear prolonged periods of falling or sagging demand, and to the belief, of course, that has been growing all through the post-war period over the last generation that all governments are committed more or less to a policy of full employment.

Now, the United States was the only country in the Western world that went through a pre-war type of business recession at regular intervals, in the late 1940s, the 1950s, then 1960-61. And it wasn't until the end of 1965, really for the first time since Korea, which was a long time ago, that we got down to below 4 percent unemployment. And then we stayed there for four years. You may not have counted back, and therefore be interested in this idle statistic: four years of 4 percent or less unemployment is the longest period of such low unemployment that the United States has experienced in peace time in the twentieth century. We had one longer period, half during World War II when we had controls, then extending into 1946, '47, '48 when we had something close to a runaway inflation reflecting the pent-up demands of World War II. That long a period of very low unemployment tends to cumulate, so that the same unemployment rate breeds more inflation tha longer that period lasts.

Well, the result is that compensation per man-hour has been rising at an uncomfortably rapid rate, about 8 percent during the last year, significantly higher than in the preceding year when unemployment was lower. The expectation seems to be fairly general that there will not be much deceleration in 1971, and this, of course, feeds into price increases--the important difference being that we may have more of an increase in productivity this year than we had last.

With an unemployment rate around 6 percent, there is general agreement, even from people that I would be inclined from my biased point of view to call conservatives, that an expansionary monetary fiscal policy is required for 1971 in order to bring down the rate of unemployment. Indeed, it is clear--and the White House has as much said so--that if Mr. Nixon is to have a reasonable chance of being reelected in November, 1972, the unemployment rate must be down to 4.5 percent by July, 1972. Period. This calls for expansionary policies at the aggregate level. Does this mean, therefore, not retarding inflation but accelerating it again? If we're to have an expansionary monetary fiscal policy during the next year and one half, and if the government is pledged to reducing inflation, what means are available to us?

It is because of this conflict and contradiction--general agreement on the need to bring down unemployment and the widespread conviction that we must also do something to reduce the rate of inflation---that one hears on all sides increasingly talk about the need for a national incomes policy. And it is surprising, in view of past history, to see over how wide a range of the political spectrum one hears suggestions emerging as to the need for a national incomes policy of some sort. Indeed, some of the groups in political circles who were most bitter,

most vehement, in opposition to the wage-price guideposts of the Kennedy and Johnson Administrations are now among the strongest advocates of something to be called an incomes policy under the Nixon Administration.

It's my own view, and I offer it as nothing but a personal view with such limited documentation as I can provide in a very short time, that we do need a national incomes policy in the United States, and the sooner the better. I would advocate the setting up of a wage-price and incomes board with very substantial powers. I would be opposed to a compulsory wage-price freeze; indeed, I would be opposed to compulsory wage-price controls either on these bases or on a selective basis. Perhaps what's wrong with me on that point is that I remember too well the attempts to make price controls work during World War II, and again on a limited basis during Korea, the red and blue stamps, the slipping of goods under the counter, and all the rest. To try to go through all that in peace time is more than, at the moment, I, as an individual more so than as an economist, am prepared to recommend. However, I do recommend that we try an incomes policy without legal compulsion, but with all the other kinds of compulsion we can bring to bear. I would set up, whatever you want to call it, an incomes board, a wage-price and incomes board, a national incomes commission--I'd be against the word commission because that suggests that it isn't going to do anything--and I would give it a great deal of power. It should be as independent of the Administration as possible; I do not believe that the Council of Economic Advisors can do the job or any other established agency of the Administration.

Such a prices and incomes board, or wage-price and incomes board, should make public statements as needed. It should use every release of official statistics about prices and wages in which there have been rapid increases to offer general warnings. It should set out some general guidelines, or to use that nasty word of 8 or 9 years ago, guideposts. I was one of those who advised the Council of Economic Advisors in the Johnson Administration to give up numbers, like the old 3.2 percent. But I think that in the present situation we probably need some numbers or at least some formulae, and I would prefer formulae to fixed numbers to apply across the board. Now, I have no fixed formula, or set formula, to propose to you this afternoon. What I have in mind is something of this sort: that the incomes board, or price-wage and incomes board, should announce publicly and drum up all the public support it can get for a formula in which new wage settlements would be based on some percentage of average price and productivity increases over the past X years, 3 years, 5 years, and what not, with an adjustment for wage settlements during that period. I'm thinking particularly of a group like the construction trades, who,

if there are any representatives of them here this afternoon, have been getting away with murder, and all pressure should be placed on them to settle for less than the general formula that would apply to other industries, other occupations, in which wage settlements have perhaps not even kept up with the cost of living. I would authorize and encourage this price and incomes board to consult with the parties at interest in advance of major settlements, trying to induce labor to make moderate demands and to stiffen the backbone of employers as needed.

After settlements, I would give maximum unfavorable publicity to those settlements which the board considers to be highly inflationary. And both sides should know that the board would do this, in advance, and the board should have a liberal budget from Congress for publicity directed to this end. Similarly, on the price side, the board should give maximum unfavorable publicity to unwarranted price increases, and it should participate, with the help of the President, in behind-the-scenes arm twisting in the case of important price increases or threatening price increases. But I don't think this is enough. The board should also be organized to work closely with the manpower authorities, in order to encourage increases in productivity, including directly attacking local restrictions on entry into trades and occupations and state and local regulations that seriously hold down productivity.

Now, we do have a national commission on productivity. One seldom hears of it, or about it, and I don't know what it's doing. I'd like to see, as a part of this prices and incomes board, a productivity commission with teeth and determination to act or have this as a part of my prices and incomes board. Also, and I've suggested this, this board should work to break the manpower bottlenecks in various ways, including accelerating the upgrading of workers, loosening union restrictions on entry, improving our system of apprentice training, shortening apprentice periods, and so on.

The board ought to be encouraged to lobby for changes in national laws and regulations, and state laws and regulations, as they impede advances in productivity and artificially restrict supply. And to show you how far I'm up in the clouds, I would look upon my prices and incomes board as having one of its obligations to lobby Congress to do away with oil quotas, oil import quotas, meat import quotas, and other restrictions on supply from abroad imposed by lobbies for particular interests.

Now, I'd like some advice and counsel from the representatives of labor here. It would be my guess--and I may be wrong--that such a board, set up with such authority and such instructions might not have the cooperation of labor, and if labor were invited to approve a representative or representatives to serve on such a board, labor might refuse. If labor did refuse, I would then go for a nonpartisan board with neither representative of labor nor employers on it, but I would go ahead. And then I would propose that at the end of two years the situation be reviewed, the work of the board evaluated, and Congress then decide whether to get rid of it and go back to letting the market behave with no interference or to continue it, perhaps with even stronger powers.

What are the alternatives? One alternative is to go after unemployment, getting it down to 4 percent or so by 1972 and risk an even further acceleration or rate of inflation. Now, I happen to be in a very small minority who think there are ways of coping with inflation besides increasing unemployment, among them putting virtually all contracts on a purchasing-power basis, including savings accounts, government bonds, annuities, and you name it. But this is not likely to happen. And even if that were done, there would be a variety of inequities out of rapid inflation that you are all familiar with. But continued and possibly further accelerating inflation is one alternative.

The only other alternative I see, if we can't come up with an effective incomes policy and insist on bringing down the rate of inflation to less than 3 percent, is for Mr. Nixon to give up any hope of being reelected in 1972 and take a 5 or 6 percent unemployment rate indefinitely.

Thank you.

NATIONAL INCOMES POLICY AND ITS IMPACT ON LABOR-MANAGEMENT RELATIONS

Frank L. Fernbach

Our subject is surely broad enough to encompass almost all the problems that beset the American economy. At the outset, some definition of the concept of a "national incomes policy" is in order. Thereafter, it seems appropriate that some judgment be rendered about the wage-price guideposts promulgated in 1962, the causes of inflation, and the consequences of the economic stabilization efforts of the Johnson and Nixon Administrations. Finally, it also seems appropriate that a speaker on this subject should confide his own "game plan" for concurrently achieving and sustaining adequate economic and job growth and price stability, too.

Scholarship dictates that none of these relevant aspects of our subject should be slighted. Yet the program dictates that the maximum allotted time is precisely 20 minutes. I shall use my remaining 19, therefore, quickly to summarize the general views on these matters of organized labor, as I understand them. If your appetite is sufficiently whetted, more is available in several detailed reports and statements of the AFL-CIO.

To begin with, the term "national incomes policy" seems to mean many different things, depending upon the user. For many it apparently means solely wage and price controls, mandatory or voluntary, and with special emphasis upon wages. I would characterize Professor Gordon's views as fitting within this wage-emphasis category.

For labor, however, a national incomes policy means precisely what these words imply, a policy covering all forms of income, not merely wages and prices, and encompassing the entire nation. In fact, as long ago as February, 1966, as military outlays for Viet-Nam were quickly rising, the AFL_CIO made the following statement and has reiterated it many times since:

"If the President determines that the situation warrants extraordinary overall stabilization measures, the AFL-CIO will cooperate, as long as such restraints are equitably placed on all costs and incomes...including all prices, profits, dividends, rents, and executive compensation, as well as employees' wages and salaries. We are prepared to sacrifice as much as anyone else, for as long as anyone else, so long as there is equality of sacrifice."

This insistence that all should share the burden of income restraint reflects the fact that few workers benefit by inflation and the great majority suffer from it. Actually, the real buying power of the weekly after-tax earnings of the average nonsupervisory worker in private nonfarm employment, a group of about 48 million people, declined in 1970 for the second consecutive year. It was less than in 1968 and even below 1965. However, these unfortunate circumstances have not touched all element of the population. A few, in fact, thrive upon inflation.

What is more, by early 1966 labor had learned from hard experience how inequitable the wage-price guideposts conceived in 1962 actually turned out to be. This was true for several reasons:

The single magic productivity-growth figure chosen as the guideline to measure how high wages could rise-the figure of 3.2 percent, was, in our judgment, understated.

Moreover, while the formula established a proposed wage-increase ceiling, achieving it was by no means assured. If workers were unorganized or their employers' profits were scant, many simply got less, or nothing at all.

In addition, newly organized workers and those deprived of the guidepost-approved gains in prior years for whatever reasons, were not granted a "catchup" under the formula.

What is more, the guideposts made no allowance for inter-industry or intra-industry wage inequities or allowance for changes in the relative shares going into wages and profits as a consequence of the value added in the production process. These relationships were frozen under the guideposts.

Furthermore, a critical guidepost weakness was its failure to make allowance for rising prices.

Finally, while the voluntary guidepost policy contained a precise guideline covering workers' compensation, and a less precise one for prices, there was no guideline at all for profits, dividends, rents, executive compensation and other forms of income.

It is noteworthy that the setting of wages, even in the absence of guideposts, involves very real built-in restraints upon labor. For unorganized workers wages are governed by marketplace factors, plus the impulse--rather natural-- of their employers towards restraint. Under collective bargaining it takes two to make a bargain and in the larger industrial establishments--in steel, for example--often three. Guideposts or not, the federal government's presence at the bargaining

table increasingly has become a fact of life. Further restraints upon labor are imposed by the climate of business conditions when collective bargaining occurs, realization of the suffering imposed on workers during protracted strikes, and by the long durations of most agreements, once signed.

Price setting, on the other hand, involves few built-in restraints, except for business conditions and the often diminishing impact of competition, moreover, prices are set unilaterally, generally with little or no advance notice.

Clearly the wage-price guideposts--while perhaps a useful academic exercise--were neither equitable in real life nor administratively feasible in our vast continent-size economy with its 150,000 collective bargaining contracts covering tens of thousands of separate workplaces, each with its own special problems and circumstances.

Some have pointed to how "successful" the guideposts were, because from 1960 to 1965 the rise of real employee compensation lagged considerably behind the increase in productivity. While total private output per man-hour increased at an average yearly rate of about 3.6 percent, the buying power of employee compensation per hour in the private economy increased only 2.9 percent, nonsupervisory workers lagged even further behind.

The sluggish gain in real worker earnings from 1960 to 1965 was accompanied by a drop of 1.6 percent in unit labor costs of industrial goods. Nonetheless, wholesale industrial prices rose 1.7 percent, reflecting rising profit margins per unit sold. Thus, the rapid profit rise during the first half of the 1960's was underpinned not only by a rising volume of sales and the failure of workers to share adequately in the benefits of productivity growth, but also by the 7 percent tax credit enacted in 1962 and by unjustified price raising, too. From 1961 to 1966, aggregate corporate profits after taxes skyrocketed from $27 billions to about $50 billions, achieving the highest return on owners' equity in modern history. Here, indeed, was evidence not of wage-caused inflation but of profit inflation. What is more, the accelerated depreciation allowances, also approved in 1962, fueled a record-breaking corporate cash flow, as well.

At the same time that the profit and cash flow rise was igniting a one sector capital investment boom, the Viet-Nam war further spurred an economy already overheated.

For all of us of course, foresight tends to be more elusive than hindsight; we all recognize today what should have been done in 1966 if, indeed, the extent and duration of our military involvement in Viet-Nam could have been foreseen.

It is useful to recall that immediately after the Korean War broke out a decade and a half earlier, a wartime excess profits tax was speedily enacted, and general tax increases and other stabilization measures quickly followed. In the case of Viet-Nam, however, we remained economically immobilized. No excess profits tax was enacted to help albeit both equity and price restraint, and the overall surtax was not adopted until mid-1968. Inevitably, the pace of the chain reaction of rising prices accelerated and labor, in turn, was forced to seek redress through higher wage settlements as best it could.

Although by 1968, the President's Cabinet Committee on Price Stability and his Advisory Committee on Labor-Management Policy were both belatedly urging the use of more effective tools with which to fight inflation During President Johnson's final year in office the C.P.I. rose 4.8 percent, a peak for the decade until then.

I feel constrained not to be too critical of the economics of the Nixon Administration because its "game plan" seems to be changing swiftly and at some point a new policy mix just might turn out to be right. For the first two Nixon years, however, the plan has merely succeeded in trading off less inflation for more inflation and has transformed reasonably full employment into the highest level of joblessness in nearly a decade. And, to help achieve these inglorious results it purposefully induced the highest interest rates since the Civil War. I am not sure whether future ideologists will seek to credit this disaster to guidelines enumerated by Adam Smith, Lord Keynes, or a mixture of both. Call it what you will, it hasn't worked.

It is now evident that producing an economic squeeze and rising unemployment are easy enough to achieve by the application of fiscal restraint and tight money-high interest rate devices. But the hoped for Philip's curve "trade-off"--the long sought checkrein on prices--has eluded us and at least some of the reasons are now evident.

First, the new Administration seemed in early 1969 to be signalling by its own actions that the declared war on inflation was not to be taken too seriously. For example, it voiced no objection at all when the 91st Congress increased its own salaries by over 40 percent and the President's by 100 percent. In the face of this self-indulgence, the reported mere 9 percent annual increase in the salaries of corporation executives over recent years was, indeed, restrained. Moreover, the new President quickly assured the business community that it need not fear the embarrassment of White House "jaw-boning" in response to upward pricing.

While the deliberately inculcated economic squeeze was calculated to produce price restraint, it didn't do so, as Professor Gordon has pointed out. Actually, the slowdown suppressed the rate of productivity rise and thus encouraged rising unit production costs. Moreover, soaring interest rates also helped raise costs and prices all along the line, from the farmer and manufacturer to the wholesaler, retailer, and consumer.

After two years of failure--with rising unemployment and unabated inflation--the President has announced a turnabout: rapid economic and job growth now is to be pursued and a cooling of inflation, too. The objective of this revised game plan surely accords more fully with public desires. Yet, while changing the direction of monetary and fiscal policy can indeed spur the economy upwards, a simultaneous slowing of the pace of inflation just sounds too good to be true.

Nevertheless, the record shows that the first recovery year after each of the four previous post-World War II recessions, produced both--and I repeat, both-- a rapid G.N.P. rise and relative price stability, as well. This latter good fortune occurred, in part, because lower interest rates and rising productivity and plant utilization efficiencies helped check unit production costs. These factors, plus lesser expectations of rising prices, reduced the impetus toward higher prices.

A real effort now to raise industrial production quickly from the 72 percent operating rate of the last quarter of 1970 can reduce the number of jobless quickly and, simultaneously, may also induce cost-price restraint. However, additional anti-inflation efforts to restrain cost rises in particularly sensitive areas must also be pursued if C.P.I. stability is to be achieved and sustained.

But the first concern of labor is that the Administration's recovery undertaking is giving evidence of falling far short of achieving the announced 9 percent G.N.P. growth, scheduled for 1971. To assure at least this level of economic upturn the AFL-CIO is urging the Congress to do the following:

1) Fully fund existing federal programs vital to the public welfare, primarily in the areas of education, health and housing.

2) Reinstitute a temporary, but substantial, accelerated public works program to provide jobs in areas hard hit by a decline in defense production and by the business recession.

3) Help the states and localities finance 500,000 public service jobs for the unemployed, and

4) Raise the consumption ability of the aged and the unemployed by increasing Social Security and Railroad Retirement benefits by 15 percent and by extending unemployment compensation benefits for the long-term jobless immediately.

What is more, an increase in the real buying power of wage and salary earners is also vitally important to underpin adequate economic growth and to ensure working people a fair share in the benefits of economic progress.

All these undertakings are important for rapid restoration of jobs and more equitably to distribute the economic growth dividend. However, additional special efforts are assuredly necessary to help restrain long-term living cost increases in several areas of vital concern to the average American family. These include:

Housing: The benefits of modern technology, the end of archaic building codes, reduced land prices, and lower financing costs must now be brought to home buyers. The direct wages paid to building trades workers are, indeed, high on a comparative hourly basis--yet it should be noted that they represent but 18 percent of the total cost of new housing.

Medical Services: Skyrocketing hospital costs and doctors' fees long have been key factors in the living cost rise. A vast expansion of medical and nursing schools and medical facilities and the development of more efficient means to deliver medical services are vital. A greater effort to meet the problem of the excessive "market power" of medical practitioners, as reflected by their excessivly high fees, is also urgent if health costs are to be restrained.

Transportation: Along with the growing inadequacy of urban transportation, its cost to users has been rapidly rising. This important living-cost factor should be checked by subsidized fares if need be.

Insurance: A restraint in these costs to the average family is overdue. This is surely true of auto insurance, the cost of which, particularly when coupled with greater auto safety, should be coming down.

Food: Farmers generally receive only a small part of the retail price of food. Nevertheless, government farm aid efforts should be geared to supporting higher farm incomes, not higher prices. In addition, the imposition of higher food costs on ghetto residents by retail chains should cease.

Credit: The blunderbuss periodic increase in interest rates throughout the entire economy to hold aggregate demand in check does great harm despite its rewards to bankers. The AFL-CIO has urged the Congress to direct the Federal Reserve Board to channel available credit, when need be, where it will best help meet national priority needs and to curb its availability for land speculation, business mergers, conglomerate takeovers, and investments overseas. Moreover, preferential lower interest rates should be arranged to help finance urgently needed community facilities, health care projects, and low income housing.

All of these kinds of structural changes are, indeed, needed if the hope of achieving and sustaining more stable living costs is to be realized. And I would add, of course, we also need expanded manpower training and entrance into the trades in proportion to expanding job expectations.

Increased imports are frequently cited as a sure inflation cure. However, the United States already has ventured far in this direction with great injury to some and too little benefit for the many. In this era of multi-national corporations, fairer rules of trade in terms that safeguard our own national well-being, not just trade which is freer, is the essential need.

Finally, it may be asked, is the future hopeful enough that it may be possible to forego the imposition of income controls? I can only say, "I hope so," for the reasons already indicated.

I cannot foretell whether the Administration will take sufficiently vigorous action rapidly to restore economic and job growth, whether the hoped-for dividend of declining unit production costs will follow, or whether business will or will not revert to its professed belief in accepting minimum profit per unit of product and maximizing aggregate profits by shooting for a constantly rising volume of sales. I cannot help but wonder if McGraw-Hill's recent forecast of an 11 percent industry-wide profit gain in 1971 and the 20 percent rise predicted by the Council of Economic Advisors have built in a presumption of reasonable profit restraint as part of a business contribution to the war on inflation. I think not.

Parenthetically, the aerospace industry, unfortunately, is not included in this profit rising speculation. Regretfully, McGraw-Hill anticipates an 8 percent profit falloff in the industry. And, by the way, while so many are concerned about evolving some theory of fair wages in magic numbers and formulas, what indeed should America consider the guideline for a fair profit? I think this question needs to be answered.

In conclusion, it is necessary to add that the imposition of an incomes policy upon the American people has succeeded only under the stress and patriotic restraint of war time. To seek to implement such a policy now, in the face of the complexity and diversity of our economy and the general state of public opinion, seems to me unrealistic. But I repeat again, if a national income straitjacket is to be imposed, we of labor will seek, in equity, that management, stockholders, doctors, lawyers, and professors, also put that straitjacket on.

A BUSINESS ECONOMIST'S VIEW OF NATIONAL INCOMES POLICY

Harry R. Biederman

I am pleased to be here today and to be able to participate in this distinguished panel, and I'm happy to bring you not only my own thoughts, but those of other business economists. Maybe some of you are only now recognizing that there is a group of economists that identify themselves as business economists; they do exist and are associated in what's called the National Association of Business Economists. We have on the order of 2,000 members in national and local chapters, and these people are working mainly in business as advisors to management, some of them as management.

I've described this noble group not merely to warm your hearts and make you sleep more comfortably tonight, but because it's this group, the National Association of Business Economists, that I've surveyed in trying to find out what is their view on incomes policy. We sent out about 300 forms and received back about half that number as answers. We asked each respondent for his own opinion of what should be incomes policy, and we asked for his guess as to what his management's view was. I'll go over the choices that were offered to the people, and I'd like a show of hands later on what your own choice is so there will be a test at the end of this explanation as to what the choices were.

The possible government actions that we suggested were, (1) a hands-off policy, which was expressed just about that way; (2) limiting actions to monetary and fiscal policy with urging that people accept them; (3) a provision of quantitative guidelines by the Administration; (4) the guidelines with teeth, that is, added teeth to these guidelines--and there we identified such things as the use of the government's purchasing and selling powers, liberalizing import provisions, interpret regulations more strictly, and, I think, that the board that Professor Gordon suggested would come in here, although we did not specifically mention them. If we had, the results might have been different; (5) temporary wage and price freeze; and, (6) wage and price controls. These were the six choices that we gave the people.

Now if you would cooperate, it would be interesting to see here how many of you favor a complete laissez-faire policy on the part of government? Nobody. All right. Limiting action to monetary and fiscal policy, such as we had until recently? Adding quantitative guideposts? We've got about

3 people on this. Now, I want you all to vote; so far we've got three voters, and they're all in this column. Guideposts plus teeth, some enforcement? Okay, I would say this is the majority of those present. Temporary wage and price freeze? Some would go that far. And wage and price control? Okay, a few there. All right, well the overwhelming choice of the group here is No. (4).

Let's see what the answers were from the business economists. There were a few who said hands off, laissez-faire. Monetary and fiscal policy--a fair number, it ranked second. The guideposts--about half as many as for monetary and fiscal policy. Guideposts with teeth--this was the group's choice, again agreeing with you, although not as strongly as it was here today. A freeze--a very small number. And controls--a very small number. So this was the distribution. It seems to me in looking at this that some of them were reluctant, a number were reluctant to go beyond this point. But once deciding to go past monetary and fiscal policy, most would go as far as to have not just the guidepost, but guideposts plus some enforcement actions.

Now let's look at their view of their management. We'd like to know what management thinks, and this is what these people thought. We could have said that the economists and the managements had the same view, but the economists didn't think so. This is the economists' view of management: 52 percent prefer monetary and fiscal policy only; a declining number, 25 percent prefer guideposts; and 16 percent, guideposts with teeth. So, the economists thought there was a different distribution.

The survey form--I didn't call attention to it--but it had on it space for people to comment. I just wanted to give people a chance to say what they thought, and I was surprised by the results. About half of the respondents did choose to make comments. And while they touched on many subjects--foreign trade, wage and price review board, construction industry, the importance of timing, that policies change with time--more than a third of the comments, and by far the greatest concentration, was in the area of labor costs pressures. Since we're concerned here with industrial relations, I'll recite some of these remarks. Not that I agree, my own views are weaker than the expressions you'll find here. I'll read some of these remarks that came in.

> The power of labor has thrown out of balance the normal prices in the economy. A period of wage and price stability through government intervention is necessary to break the spiral.

The momentum of cost-push in unionized sectors must be broken. Construction is the worst offender.

A reorganizing of legislation which has become too pro-labor; if wages are back in line, prices will take care of themselves.

Longer-range solution must include a diminution of labor's bargaining power in a few industries, such as construction. Limit the power of unions and institute programs to increase the supply of labor where it has been artificially restricted.

I don't mean to imply that unions should be made ineffective, only that the balance of power between labor and management should be restored.

Compulsory arbitration in industry is involving the public interests.

I'm growing very pessimistic about the success of anything less than wage and price controls. Can labor cost be controlled by guidelines of any type?

Repeal the Davis-Bacon Act. Don't raise the minimum wage law. Repeal compulsory labor and union bargaining laws. The domestication of the labor movement is the largest and toughest domestic economic problem. We may be seeing the death of freedom as we've known it.

Well, all right, this fellow is going farther than the others, but what do we read from these other comments. As I say, I hadn't anticipated what the comments would be. I don't think they're simply an expression of anti-union feeling that is always present in some segments of the population. I suspect that the wage-price push we have now is causing people to look with great concern about the powers that unions have, and to wonder about this. I don't think that this period will see an undermining of collective bargaining rights; I don't think that's at all likely. But it is interesting to see the strength of some of these remarks.

Now, let me turn to my own choice and to my own comments. I share with you a preference for No. (4), I think guidelines plus teeth, and I certainly would include the wage-price board actions, and perhaps go as far as Professor Gordon suggested in this; whatever you can do short of controls, I think is desirable at this point. I'd like to focus for the balance of my remarks on what the present Administration's policy is as far as guideposts and teeth go, and to comment on those.

Actually, the present policy was very well delineated, some of you may have heard it, at Town Hall on March 9, a little over a week ago. Secretary of Labor, James Hodgson, spoke there, and he outlined the current policy. During the question-and-answer period, I asked Jim, who is an old associate of mine at Lockheed, a man I respect very greatly, asked him a question, and I'd like to repeat the question now and let you hear directly his reply. The question was, "Secretary Hodgson, what would constitute a responsible wage demand?"

"I would think that the last thing a public official would want to do is get into specifics on exactly what is the point along the dismal spectrum that things become inflationary versus noninflationary. I think we can say that one of the places you start with this is with some of the general observations I made about productivity and inflation. Certainly, any increase that is substantially beyond an increase that is a total of more than the productivity increase and the inflationary increase of the recent past can be considered heading toward inflation. But we don't believe that that's the way we should go about this, by defining what is an inflationary increase. We believe we should take a look at those areas on both the price side and the wage side that are significantly out of phase with what the general pattern is in the country and do something about those, and by doing something about those, tend to condition others to try to avoid being out in front where you can get shot at."

All right, how would you characterize that policy? To me, it is a policy of teeth without guideposts. I think this is what the Secretary has told us is the policy. The teeth are there. We've seen them in the actions that have been taking place, recently the action on steel, on oil imports, the study of copper prices, the Bacon-Davis Act, all these things. But we do not know today what is an acceptable policy as far as wage increases go or as far as price increases go. I would argue that there is a role for wage guideposts, in addition to this picking off of the leaders. But before discussing that, let me say that I certainly agree with Frank that we're seeing a change in the game plan at this point, and I believe with the many that this is a good change. We're moving from a policy of constriction on employment and output to a policy of expansion. And there's a recognition with the policy we've just heard that some sort of government intervention is necessary to avoid runaway inflation. What I'm going to talk about is certainly secondary to this overall change in policy, which I do believe is in the right direction.

Well, what makes me think that we do need wage and price guideposts? There are three interrelated points that I'd like to explore in answering that question. First, leadership towards stability. Second, the implied inflationary standard. And third, the support of responsible actions. Now, on leadership toward stability, the old wage and price guideposts, which Frank didn't think very much of, did have a relatively simple job compared to the job today, it seems to me. Their job is to maintain stable prices. We had price stability in the first half of the 1960s, and the policies were aimed at maintaining that. As we look at the problem today, it's not one of maintaining price stability, but of leading the economy from inflation to more stable prices. That's a much more difficult job.

Arriving at and interpreting the old standards wasn't easy. You have a list of references in the folder that was handed out. I'd suggest that the lecture by Dennison referred to there is well worth reading to see the inconsistencies in the way in which the old policy was interpreted by the Council of Economic Advisors; that wasn't easy. To find a new policy will be even more difficult. I certainly bow to Professor Gordon for trying, for spelling out in as much detail as he did what that would constitute. I won't go quite that far, but some features of the new policy are clear; Secretary Hodgson's remarks call attention to some of these. Wages could increase by the amount of productivity plus recent rates of inflation without accelerating the rate of inflation that we are having. Hopefully, they would increase at somewhat less than the sum of these two items, so that we would have a reduced rate of inflation. Attempts to catch up by the unions because of loss of purchasing power in the past or of other groups having moved ahead, these could be introduced only slowly and perhaps only partially. As for prices, they should certainly rise no more than costs, and desirably they should rise less, which would, of course, lead to reduced profits in those industries that made such price reductions.

The reasons for not going along with the guideposts are clearly very difficult to set, and they're certain to be unpopular, no matter what they are. But some disappointments seem necessary if the economy is to return to stable prices. Now, this was stated very simply in the second inflation alert put out by the Council of Economic Advisors. It said that at any moment there are some people who have recently received a wage or price increase and some who have not yet, but soon may. Slowing down the inflation means those who come later will get smaller wage or price increases than those who came earlier. This may seem unfair to some, but there is no escape from it. If everyone in his turn gets as big a wage or price increase as the biggest obtained by others during the height of the inflation, the inflation will go on endlessly. You're certain to be unpopular, but if we wish to end inflation some will suffer inequities and this is necessary.

I want to mention that I'm not the only one pointing to the lack of guideposts. There was an interesting statement by R.H. Larry, who is vice-chairman of the board of U.S. Steel. He said that the government will soon run out of market protection, which it can withdraw or threaten to withdraw. Moreover, I feel sure it must recognize the unfairness of pointing the fingers at so-called sinners in the absence of even a broad definition of what constitutes sin--and only at select sinners at that. Well, unpopular and difficult as the guideposts may be, I think the Administration should define what is inflationary sin, and what is inflationary virtue. I think that this is a part of its leadership responsibility.

Let me turn to my second argument for guideposts, and this is the implied inflationary standard. One could say right now, in light of what we've just heard the Secretary of Labor say, that there is a standard for inflationary sin and virtue, namely, don't be too far out in front in setting wages and prices. Let's listen again to Secretary Hodgson as he reinforces this philosophy:

> But clearly, among the major industrial groups in the nation, none were anywhere near as far out in front in the wage picture as construction--and not only in construction settlements in the last year and this year, but in construction demands for the forthcoming year. It was a lead dog, so to speak. And it was for that reason that we felt we ought to take some action in that direction. Now, there are others that we are going to be looking at. And I could say that any others that are planning to consider wage increases at the level that construction has granted, the 15, 18, and 22 percent levels that mark the last three quarters of last year, anybody that is considering that, they can confidently feel that the government is going to be examining what they do. And it's going to disapprove of it and it's going to find some way to deal with it.

Well, it doesn't take much imagination, I would suggest, to see how labor and industry might respond to that kind of a statement. It seems the best strategy would be to be a part of the pack and perhaps toward the front of the pack, but don't be so far out in front as to be a lead dog. If that strategy is taken by labor and management, we'll have a perpetuation of the inflationary trends that we have had. Again, the increase in compensation per hour in the past twelve months was 7 percent. Productivity cannot be counted on for long to rise more than about 3 percent a year. This means that a continuing rate of increase of employee compensation per hour

of 7 percent would commit the economy to a continuing inflation of about 4 percent. A continuing rate of inflation of at least 4 percent is what seems to be implied by the consequences of interpreting "stay with the pack as acceptable behavior; the Administration and almost everyone else recognize that as far better performance than is necessary. Specific guidelines to define a path to lower the rate of inflation would help suggest that path, and make it clear that responsible behavior involves more than avoiding the lead-dog role.

Finally, my third argument; support for responsible actions. Today a management that wishes to hold the line in wage negotiations or a union leader who would like to justify to his members a settlement that is less inflationary than other settlements lacks the support of a quantitative guide post. If the government would set a guidepost, any guidepost, 6,7 percent, whatever, it would support labor and management by setting a noninflationary standard.

In conclusion, then, economic policy, I think, has taken a major turn for the better. To fight inflation, a new policy of expanded output and reduced unemployment needs the support of an incomes policy. I agree with you and the other economists that the best incomes policy at the present is guidelines with teeth. Teeth are now being used by the Administration, but guidelines have not been formulated. The guideposts are needed to provide leadership toward stability, to avoid the implication that the average rate of inflation today is the acceptable rate, and to support labor and management in making less inflationary settlements. Thank you.